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ORIGINAL RESEARCH

## A Matrilineal Genetic Legacy from the Last Glacial Maximum Confers Susceptibility to Schizophrenia in Han Chinese

Wen Zhang <sup>a,1</sup>, Jinsong Tang <sup>b,1</sup>, A-Mei Zhang <sup>a</sup>, Min-Sheng Peng <sup>c</sup>, Hai-Bing Xie <sup>c</sup>, Liwen Tan <sup>b</sup>, Lin Xu <sup>a</sup>, Ya-Ping Zhang <sup>c</sup>, Xiaogang Chen <sup>b,d,\*</sup>, Yong-Gang Yao <sup>a,\*</sup>

<sup>a</sup> Key Laboratory of Animal Models and Human Disease Mechanisms, Kunming Institute of Zoology, Chinese Academy of Sciences, Kunming 650223, China

<sup>b</sup> The Institute of Mental Health, the Second Xiangya Hospital, Central South University, Changsha 410011, China

<sup>c</sup> State Key Laboratory of Genetic Resources and Evolution, Kunming Institute of Zoology, Chinese Academy of Sciences, Kunming 650223, China

<sup>d</sup> National Technology Institute of Psychiatry, Key Laboratory of Psychiatry and Mental Health of Hunan Province, Central South University, Changsha 410011, China

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### ABSTRACT

Mitochondrial dysfunction has been widely reported in schizophrenia patients. To dissect the matrilineal structure of Han Chinese with or without schizophrenia and to decipher the maternal influence and evolutionary history of schizophrenia, a total of 1212 schizophrenia patients and 1005 matched healthy controls, all of Han Chinese origin, were recruited in Hunan Province, China. We classified haplogroup for each individual based on mitochondrial DNA (mtDNA) sequence variations and compared the haplogroup distribution pattern between cases and controls. Haplogroup B5a presented a higher frequency in cases than in controls ( $P = 0.02$ , OR = 1.67, 95% CI = [1.09, 2.56]), and this result could be confirmed by permutation analysis. Age estimation of haplogroup B5a in cases revealed a much younger age than that of controls, which was coincident with the Northern Hemisphere deglaciation at the end of the Last Glacial Maximum. Analysis of complete mtDNA in five patients belonging to haplogroup B5a showed that this background effect might be caused by haplogroup-defining variants m.8584G>A and m.10398A>G. Our results showed that matrilineal risk factor for schizophrenia had an ancient origin and might acquire a predisposing effect on schizophrenia due to the environment change and/or orchestration with other nuclear genetic factors appeared recently in human evolutionary history.

**KEYWORDS:** mtDNA haplogroup; Schizophrenia; Association; Last Glacial Maximum; Evolutionary medicine

### INTRODUCTION

Schizophrenia is a worldwide prevalent major psychosis, whose point, period and lifetime prevalence estimates reach 0.46%, 0.33% and 0.4% of world population, respectively (Saha et al., 2005). In China, recent epidemiological investigation showed a prevalence of 0.75% of population among four provinces (Phillips et al., 2009). Despite the fact that previous

studies were mainly focused on neurological dysfunction for schizophrenia, mitochondria had drawn much attention in recent decades for its crucial role in energy supply to the brain. There are accumulating reports for maternal transmission of schizophrenia in clinical pedigrees, suggesting an active role of mitochondrial DNA (mtDNA) mutation and background effect during the onset of schizophrenia (Gottesman and Bertelsen, 1989; Goldstein et al., 1992; Wolyniec et al., 1992; Verge et al., 2012).

Mitochondrial dysfunction, including oxidative phosphorylation (OXPHOS) deficiency, abnormal mitochondrial gene expression, and perturbation in mitochondrial network dynamics, has been recently reported in

\* Corresponding authors. Tel/fax: +86 871 6518 0085.

E-mail addresses: [chenxghn@gmail.com](mailto:chenxghn@gmail.com) (X. Chen); [ygyaozh@gmail.com](mailto:ygyaozh@gmail.com); [yaoyg@mail.kiz.ac.cn](mailto:yaoyg@mail.kiz.ac.cn) (Y.-G. Yao).

<sup>1</sup> These authors contributed equally to this work.

schizophrenia patients (Maurer et al., 2001; Dror et al., 2002; Karry et al., 2004; Prabakaran et al., 2004; Iwamoto et al., 2005; Munakata et al., 2005; Ben-Shachar and Karry, 2008; Rosenfeld et al., 2011) and other mental disorders (Shao et al., 2008; Giulivi et al., 2010). Hitherto, several studies had reported positive associations between mtDNA mutations and schizophrenia (Lindholm et al., 1997; Marchbanks et al., 2003; Martorell et al., 2006; Bamne et al., 2008; Rollins et al., 2009; Ueno et al., 2009). However, some of these initial conclusions were controversial and lacked functional assessment (Bandelt et al., 2005, 2007). As mtDNA molecule accumulated mutations in a chronological order during evolution, these ancient variants, which defined different haplogroup backgrounds (a haplogroup means a group of mtDNAs that share certain ancient variants) and presented regional specific distribution pattern (Yao et al., 2002), might mirror the ancient adaptation to environment and natural selection pressure during the origin and migration of modern human beings (Ruiz-Pesini et al., 2004). Due to the change of environment and life-style, those ancient mtDNA variants/haplogroups might increase the risk of disease according to the ancestral-susceptibility model (Di Rienzo and Hudson, 2005). Indeed, haplogroups HV (Amar et al., 2007) and JT (Magri et al., 2007) were reported to be associated with schizophrenia in Israeli Arabs and Italians, respectively (note that a recent study in Spanish population found no association of mtDNA haplogroups with schizophrenia (Mosquera-Miguel et al., 2012)). Because of the relatively small sample size in some of these studies and the remarkably different matrilineal components in East and West Eurasians (van Oven and Kayser, 2009), we need a comprehensive study to discern the mtDNA haplogroup effect on schizophrenia and to test whether ancient mtDNA variants could serve as an example of the ancestral-susceptibility alleles for schizophrenia.

In this study, we dissected the matrilineal components of well-matched Han Chinese with or without schizophrenia from Hunan Province, China, to discern mtDNA haplogroup effect on this disease. Haplogroup B5a was found to be significantly over-represented in schizophrenia patients. Further reconstruction of the evolutionary history and regional distributions of this haplogroup provided interesting implications on the origin of schizophrenia in Han Chinese.

## RESULTS

### Haplogroup distribution pattern

Based on obtained mtDNA sequence information, all 2217 Han Chinese with or without schizophrenia could be classified into respective haplogroups (Table S1). Among the prevalent haplogroups (each was shared by at least 30 individuals) listed in Table 1, haplogroup B5a had a significantly higher frequency in schizophrenia patients (5.4%) than controls (3.3%) ( $P = 0.02$ , OR = 1.67, 95% CI = [1.09, 2.56]). The other haplogroups presented no significant difference between the cases and controls. Logistic regression analysis was performed for 22 (nested) haplogroups leaving the chosen haplogroup as

a dummy variable and haplogroup F as the reference (this haplogroup was selected as it has an OR value of 0.98 and a  $P$  value of 0.91). This approach could partially assist in avoiding the multiple testing issue of the Fisher's exact test. Haplogroup B5a was consistently different between the patient and control groups (Table 1). The higher prevalence of B5a in the case group received further support from the permutation tests (Fig. 1 and Table 1).

A principal component (PC) map was constructed on the basis of mtDNA haplogroup distribution frequency to discern potential population stratification between the case and control samples. As shown in Fig. 2, the case and control samples showed a close affinity in PC map, confirming the matched geographic origin of both populations. In general, Han Chinese populations from South and Southwest China showed a more diverse pattern than those from East and Northeast China. This clustering pattern was consistent with that described in our previous study (Yao et al., 2002).

### Network profile and age estimation

As each mtDNA haplogroup was formed and evolved during the dispersal of modern human, we are keen on the origin and demographic history of schizophrenia-associated haplogroup B5a, with an intention to test whether this haplogroup in patients had different demographic history and age estimate compared with the controls. Under a null hypothesis, we would observe similar age estimate for haplogroup B5a in both case and control groups and many shared haplotypes between the two groups. As shown in the network based on mtDNA control region information (Fig. 3), only 3 of 44 (6.8%) mtDNA haplotypes belonging to haplogroup B5a were shared between the case and control groups. The age estimates of B5a in the cases and controls were deviated from the above null hypothesis: B5a of the case group had a younger age ( $18,317 \pm 3271$  YBP (years before present)) than that of the controls ( $21,403 \pm 5295$  YBP) (Table 2). This time interval was spaced by the onset of Northern Hemisphere deglaciation at the endpoint of the Last Glacial Maximum (LGM) (Clark et al., 2009) (Fig. 4).

### Complete mtDNA sequencing and phylogeographic analyses of B5 lineages

Analysis of the complete mtDNA sequences of five B5a patients that were selected on the basis of network profile, together with 16 reported mtDNA sequences, seemed to yield limited information regarding the background effect or putatively pathogenic mtDNA mutation (Fig. 5 and Table S2). There are two non-synonymous haplogroup-defining variants for B5 and its sub-haplogroups, m.10398A>G (p.T114A in the MT-ND3 protein) and m.8584G>A (p.A20T in the MT-ATP6 protein), whereas the other haplogroup-defining variants are synonymous or located in the rRNA gene region.

Phylogeographic analysis showed that haplogroup B5a had a relatively high frequency in South and Southwest China,

**Table 1**  
mtDNA haplogroup distribution frequency in Han Chinese with or without schizophrenia

| Haplogroup <sup>a</sup> | No. of cases<br>(n = 1212) | No. of controls<br>(n = 1005) | P value <sup>b</sup> | P value <sup>c</sup> | PP-I <sup>d</sup> | PP-II <sup>e</sup> | Odds Ratio (OR) | 95% Confidence Interval (CI) |
|-------------------------|----------------------------|-------------------------------|----------------------|----------------------|-------------------|--------------------|-----------------|------------------------------|
| B                       | 247                        | 191                           | 0.42                 | 0.55                 | 0.22              | 0.17               | 1.09            | 0.88–1.35                    |
| B4                      | 158                        | 132                           | 0.95                 | 0.96                 | 0.50              | 0.04               | 0.99            | 0.77–1.27                    |
| B5                      | 82                         | 54                            | 0.18                 | 0.23                 | 0.10              | 0.40               | 1.28            | 0.90–1.82                    |
| B5a                     | 65                         | 33                            | 0.02                 | 0.03                 | 0.01              | 0.86               | 1.67            | 1.09–2.56                    |
| B5b                     | 16                         | 21                            | 0.18                 | 0.20                 | 0.11              | 0.34               | 0.63            | 0.33–1.21                    |
| R9                      | 235                        | 188                           | 0.70                 | 0.72                 | 0.34              | 0.09               | 1.05            | 0.85–1.30                    |
| F                       | 208                        | 175                           | 0.91                 | Reference            | 0.48              | 0.04               | 0.98            | 0.79–1.23                    |
| F1                      | 144                        | 112                           | 0.59                 | 0.63                 | 0.32              | 0.10               | 1.08            | 0.83–1.40                    |
| R9b                     | 24                         | 11                            | 0.12                 | 0.11                 | 0.07              | 0.53               | 1.83            | 0.89–3.75                    |
| A                       | 78                         | 55                            | 0.37                 | 0.39                 | 0.20              | 0.22               | 1.19            | 0.83–1.70                    |
| N9a                     | 46                         | 31                            | 0.42                 | 0.38                 | 0.21              | 0.17               | 1.24            | 0.78–1.97                    |
| D                       | 201                        | 195                           | 0.09                 | 0.32                 | 0.05              | 0.60               | 0.83            | 0.66–1.03                    |
| G                       | 60                         | 43                            | 0.48                 | 0.48                 | 0.23              | 0.16               | 1.17            | 0.80–1.77                    |
| M7b <sup>c</sup>        | 122                        | 125                           | 0.08                 | 0.23                 | 0.04              | 0.60               | 0.79            | 0.60–1.03                    |
| M7b                     | 88                         | 93                            | 0.10                 | 0.21                 | 0.05              | 0.59               | 0.77            | 0.57–1.04                    |
| M7c                     | 34                         | 32                            | 0.62                 | 0.65                 | 0.32              | 0.11               | 0.85            | 0.51–1.43                    |
| M8                      | 104                        | 101                           | 0.24                 | 0.41                 | 0.12              | 0.35               | 0.84            | 0.62–1.11                    |
| C                       | 47                         | 42                            | 0.75                 | 0.80                 | 0.40              | 0.08               | 0.93            | 0.60–1.42                    |
| M8a                     | 27                         | 33                            | 0.15                 | 0.18                 | 0.08              | 0.39               | 0.67            | 0.40–1.12                    |
| Z                       | 30                         | 25                            | 1.00                 | 0.97                 | 0.50              | 0.04               | 0.99            | 0.56–1.65                    |
| M9a                     | 18                         | 20                            | 0.41                 | 0.41                 | 0.23              | 0.19               | 0.83            | 0.45–1.52                    |
| M10                     | 23                         | 22                            | 0.65                 | 0.68                 | 0.37              | 0.07               | 0.86            | 0.48–1.56                    |
| Others <sup>f</sup>     | 78                         | 34                            | —                    | —                    | —                 | —                  | —               | —                            |

<sup>a</sup> These haplogroups with large sample size are presented in a nest clade, e.g., haplogroup B contains B4 and B5, and B5a belongs to B5; <sup>b</sup> Two-tailed P value of the Fisher's Exact test; <sup>c</sup> P value of logistic regression analysis, leaving haplogroup as a dummy variable and haplogroup F as the reference haplogroup; <sup>d</sup> Posterior probability of permutation test-I (see Method S2 for more details), with smaller value meaning more robust test; <sup>e</sup> Percentage of simulated sets with one of the three following conditions: (1)  $PPn < 0.05$  and  $PPn' < 0.05$ ; (2)  $PPn < 0.05$  and  $PPn' > 0.05$ ; (3)  $PPn > 0.05$  and  $PPn' < 0.05$  in permutation test-II (see Method S2 for more details), with larger value meaning more robust test; <sup>f</sup> mtDNAs belonging to those haplogroups with a sample size less than 10 in case or control group were pooled together.

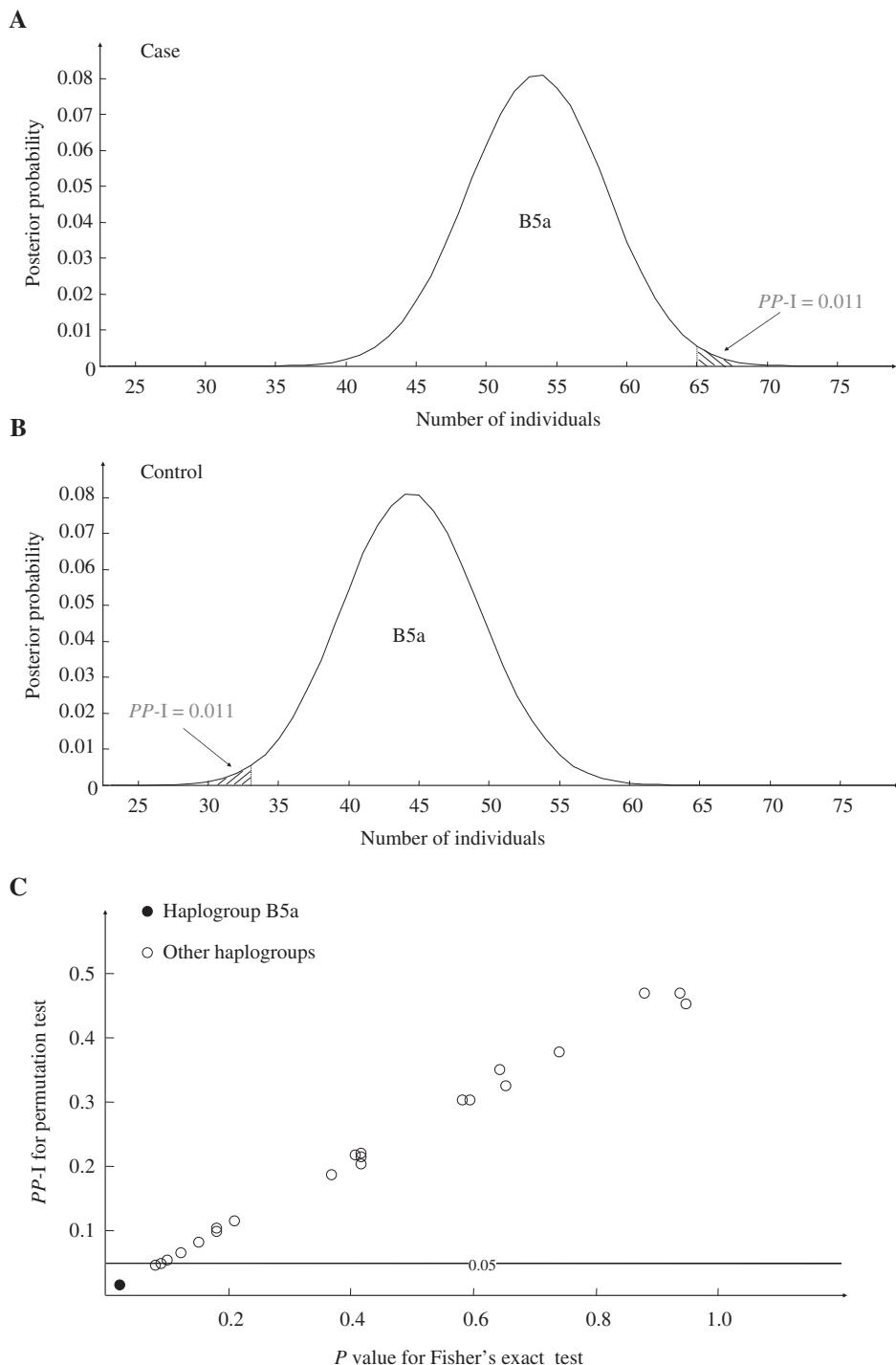
which however had no overlapping pattern with the reported regional prevalence of schizophrenia (Tables S3 and S4), suggesting that the risk effect of B5a on schizophrenia is limited or indirect.

## DISCUSSION

mtDNA haplogroup has been reported to be associated with many diseases including ischemia-related diseases (Benn et al., 2008; Chinnery et al., 2010), Leber's hereditary optic neuropathy (LHON) (Carelli et al., 2006; Ji et al., 2008; Yu et al., 2010), sepsis (Baudouin et al., 2005), diabetes (Fuku et al., 2007) and schizophrenia (Amar et al., 2007; Magri et al., 2007). However, the exact mechanism for haplogroup effect on disease predisposition remains elusive. Potentially functional change caused by the ancient non-synonymous variants, which were located at the root or nodal branch of the mtDNA phylogenetic tree and defined certain haplogroup(s), might account for the association (Carelli et al.,

2006; Ji et al., 2008). These ancient mtDNA variants had the imprints of ancient adaptation and selection effect (Ruiz-Pesini et al., 2004), and they conferred disease susceptibility under the change of environments, as suggested by the ancestral-susceptibility model (Di Rienzo and Hudson, 2005). The analysis of mtDNA haplogroup effect on schizophrenia may offer a good model for us to test this hypothesis and to trace the evolutionary history of schizophrenia, which was claimed to be a by-product of human evolution (Crow, 1997; Horrobin, 1998; Crespi et al., 2007; Lo et al., 2007; Carrera et al., 2009).

In this study, dissecting of the matrilineal components of schizophrenia patients and normal controls from Hunan Province in China revealed a statistically significant difference of haplogroup B5a, which conferred a susceptibility to schizophrenia, between the case and control groups (Table 1). How did mtDNA haplogroup B5a enact its influence on schizophrenia is an interesting yet important question. As mtDNA haplogroups were formed during the evolution and migration of

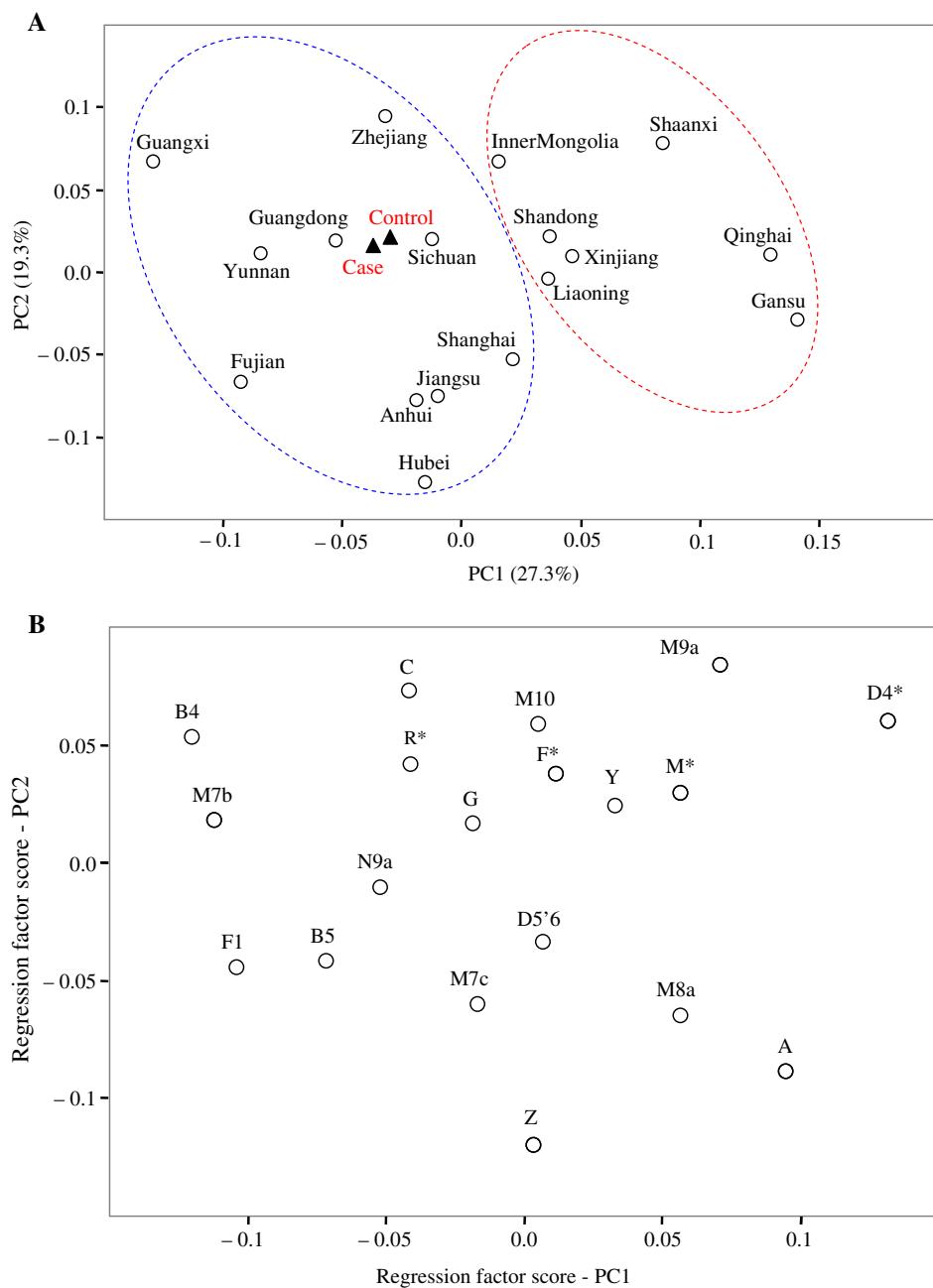


**Fig. 1.** Posterior distribution of haplogroup B5a in patients and healthy controls by using permutation test.

PP-I values in patients (**A**) and healthy controls (**B**) referred to posterior probabilities of the observed number of individuals belonging to B5a during the simulation that was larger than 64 (for cases) or fewer than 34 (for controls), respectively. **C:** Correlation of the *P* values of Fisher's exact test and posterior probabilities of permutation test for each haplogroup.

modern human (Yao et al., 2002), the demographic histories of these haplogroup with a predisposing effect on schizophrenia might provide deep insights into the origin of populations with the disease. The age estimation of haplogroup B5a in the case group was younger than that of control group. This age difference was coincidentally overlapped with the Northern Hemisphere deglaciation at the end of the LGM (Clark et al.,

2009). This result was unexpected and suggested that the ability to influence schizophrenia might be acquired in these B5a lineages after the Northern Hemisphere deglaciation around 19,000 to 20,000 YBP, which was introduced by an increase in northern summer insolation (Fig. 4) (Clark et al., 2009). On this point, our dissection of matrilineal influence on schizophrenia suggested for a rather ancient acquirement of

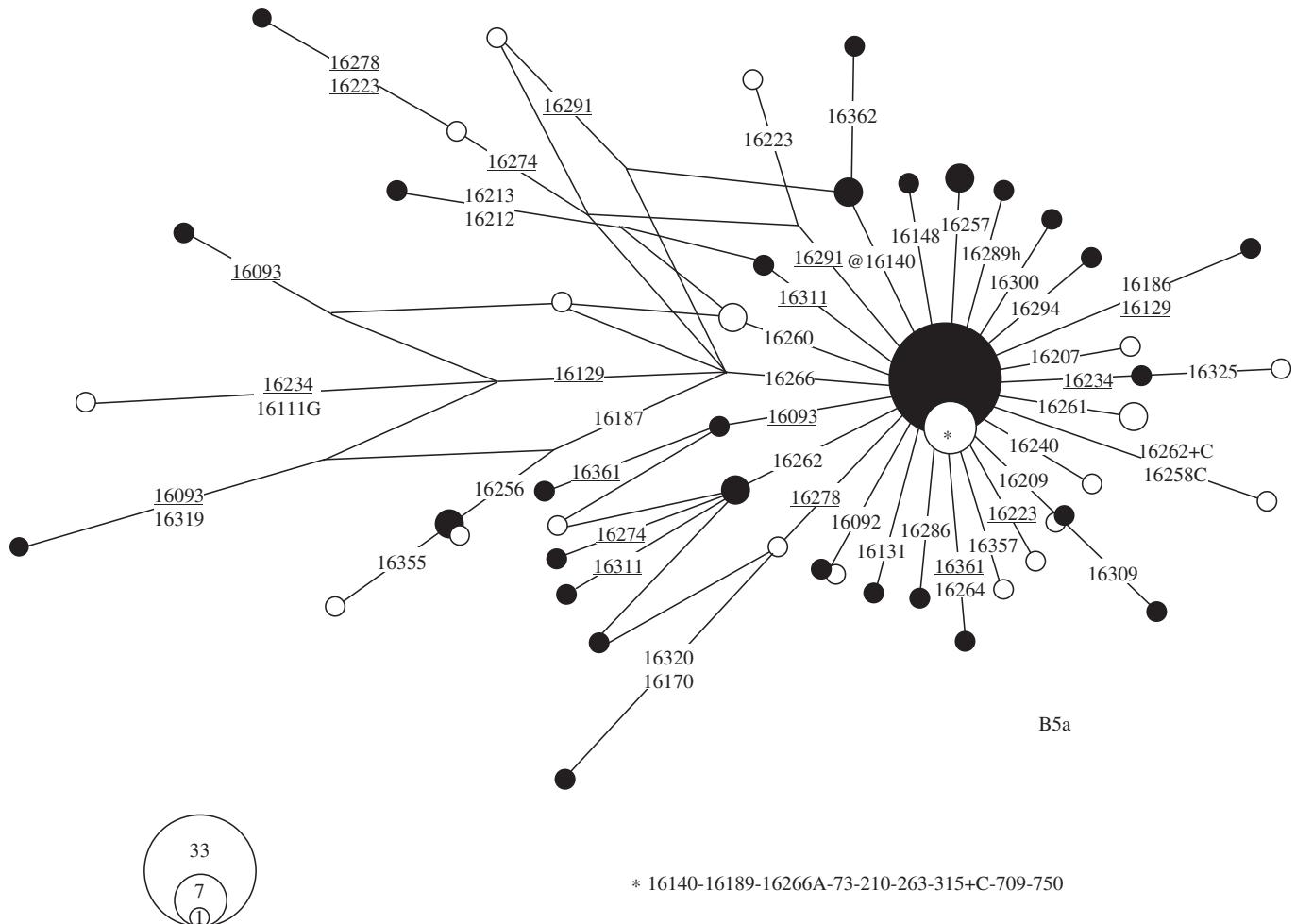


**Fig. 2.** Principal component analysis of schizophrenia patient and control samples from Hunan Province and reported Han Chinese populations across China. **A:** PC map of Han regional populations based on mtDNA haplogroup frequencies. Case and control populations were marked by solid triangles, whereas the reported Han Chinese populations (Zhang et al., 2011 and references therein; those populations with a sample size less than 25 were discarded for avoiding potential bias) were marked by open circles. Han Chinese populations from northern and northwestern provinces were clustered in red ellipse and those from southern and eastern provinces were clustered together in blue ellipse. **B:** Plot of mtDNA haplogroup contribution to the first and second PCs. We arbitrarily grouped mtDNAs belonging to R9b, R11 and R9\* as R\*; F, F2, F3 and F4 as F\*; D\* and D4 as D4\*; M11, M12, M13, M20, M33, M71, M74, M75 and M76 as M\*.

schizophrenia in Han Chinese from Hunan Province. The predisposing effect of B5a on schizophrenia was in overall consistence with the ancestral-susceptibility model of complex disease (Di Rienzo and Hudson, 2005) and highlighted the involvement of environmental change for the occurrence of schizophrenia.

We then focused on the ancestral variant which could lead to amino acid change in the root of the phylogenetic tree (Fig. 5). Among the two non-synonymous haplogroup-defining

variants for B5 and its sub-haplogroups (m.10398A>G and m.8584G>A), variant m.10398A>G was reported to be associated with Parkinson's disease (van der Walt et al., 2003) and bipolar disorder (Kato et al., 2001) and was said to affect mitochondrial matrix pH and intracellular calcium dynamics (Kazuno et al., 2006). This variant was presented in all mtDNAs belonging to macro-haplogroup M (including its sub-haplogroups) and several sub-haplogroups belonging to macro-haplogroup N (van Oven and Kayser, 2009). We



**Fig. 3.** Network of haplogroups B5a based on partial mtDNA control region sequence variation of Han Chinese with or without schizophrenia from Hunan Province, China.

The order of variants in region 16090–16365 of the mtDNA control region is arbitrary on the branch. Each circle represents an mtDNA haplotype, with the area of the circle being proportional to frequency of the haplotype. Sample size of the smallest and the largest sub-lineages was labeled in the corresponding circles as guidance. Length mutation of C-tract in region 16184–16193 was not considered except for the haplogroup-defining variants (e.g., 16189). “@” means back mutation and recurrent variants were underlined in the network. The asterisks denote the ancestral nodes of haplogroups B5a.

compared the frequency of m.10398G>A in our samples based on the haplogroup status of each sample, but found no statistically significant difference between the cases and controls. Therefore, a simple claim for a putative role of the ancestral variant m.10398A>G in schizophrenia seemed to be unlikely. We found three non-synonymous private variants in the complete mtDNA sequences of the five B5a patients generated in this study (Table S2). After web-based searching, database

retrieving, and conservation analysis (Bandelt et al., 2009), we identified no private variant that might have a synergistic effect with m.10398A>G (Fig. 5 and Table S2). There were no reports to link m.8584G>A with disease at the present time. As this variant occurred in the MT-ATP6 protein, there was a possibility that the positive association of haplogroups B5a with schizophrenia might be attributed to this ancient variant. Functional assay should be carried out to confirm our speculation.

There are several limitations in the current study. First, the frequency difference of B5a in the case and control groups was not as marvelous as one would expect for a strong association despite of reasonably large sample size and statistical power (see Materials and Methods). In addition, there was no validation of our finding in independent samples. Nonetheless, we remedied this limitation by permutation tests and confirmed the association of B5a with schizophrenia (Fig. 1 and Table 1). As schizophrenia is a very complex disease, it is understandable that haplogroup B5a may not account for the entire risk. This is the probable reason for a seemingly marginal

**Table 2**

Age estimate of mtDNA haplogroup B5a in Han Chinese with or without schizophrenia

| Group                  | n  | $\rho$ | $\sigma$ | Age (years)   |
|------------------------|----|--------|----------|---------------|
| Haplogroup B5a-Case    | 65 | 0.9077 | 0.1621   | 18,317 ± 3271 |
| Haplogroup B5a-Control | 33 | 1.0606 | 0.2624   | 21,403 ± 5295 |

$\rho$  and  $\sigma$  are calculated using nucleotide transitions in the mtDNA control region 16090–16365, and a rate of 20,180 years per transition is used (Forster et al., 1996; Saillard et al., 2000).

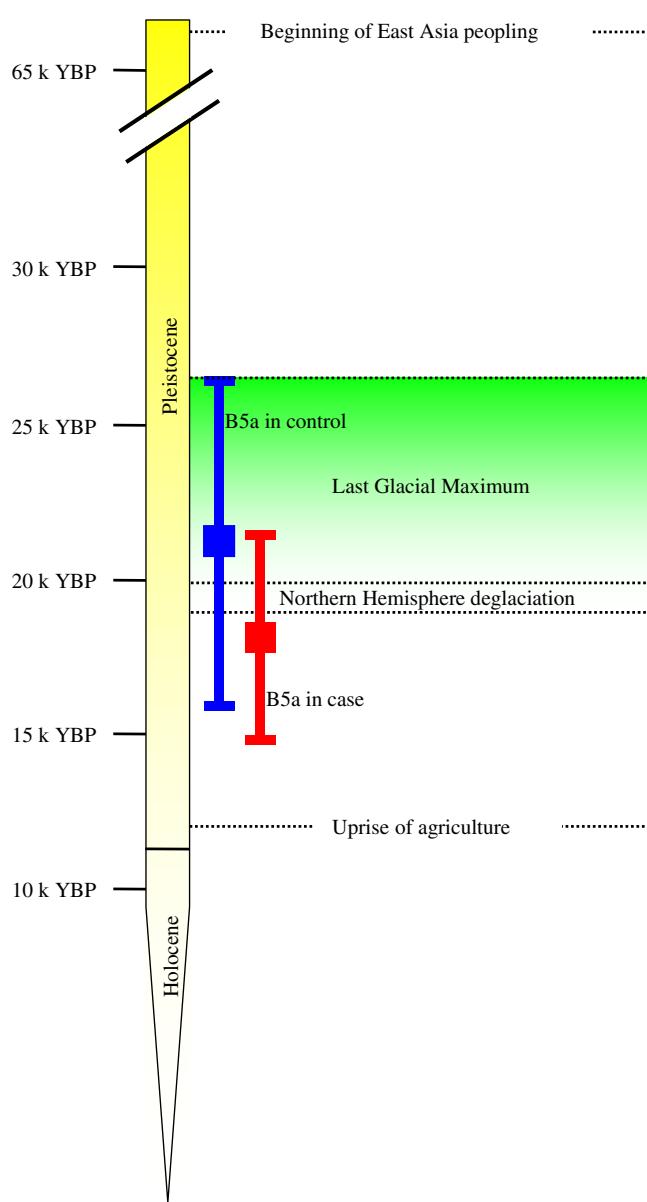


Fig. 4. Age estimate of haplogroup B5a in Han Chinese with or without schizophrenia and putative prehistoric processes.

The timing of the Last Glacial Maximum was adopted from the report by Clark et al. (2009) and the initial peopling of East Asia was taken from the report by Yao et al. (2002).

association of B5a with schizophrenia as judged from the *P* value. Second, B5a showed a strikingly regional distribution in East Asia (Table S4). Assuming that haplogroup B5a directly influence schizophrenia, we would expect a high schizophrenia incidence in B5a prevalent region. However, we found no concordant increase and decrease of schizophrenia incidence in these regions with high or low frequency of B5a based on the reported (yet limited) epidemiological investigations (Tables S3 and S4) and the disease prevalence was almost equal in different populations (Table S3), suggesting that B5a may not account for genetic susceptibility to schizophrenia by itself. Taken together, all these results suggested that B5a should be best categorized as a tag for the

population susceptible to schizophrenia in Hunan Province. This B5a-tagged population acquired the genetic risk of schizophrenia along with the dramatic environment change during the Last Glacial Maximum (Clark et al., 2009). It remains to be determined whether there is a mutual influence between B5a haplogroup background and susceptible nuclear genes in this B5a-tagged risk population during the evolution.

In summary, we deciphered the mtDNA haplogroup effect on schizophrenia in Han Chinese and identified haplogroup B5a as a susceptible maternal background for schizophrenia. Although the interaction between schizophrenia and mtDNA haplogroup B5a needs further verification in independent studies and functional characterization, our current study provided a paradigm for interpreting the demographic history of a complex disease by using an evolutionary medicine approach and served as a springboard for a larger project. Haplogroup B5a might serve as a vehicle and it was loaded with passengers prone to schizophrenia after the dramatic environment changes caused by the Last Glacial Maximum. Further independent validations and functional assessment, e.g., allotypic expression of the two non-synonymous haplogroup-defining variants of B5a, and comparison of differential transcriptomes of patients belonging to B5a and other mtDNA haplogroups, similar to the recent report in characterizing the effect of Y-chromosome haplogroup I on increased risk of coronary artery disease in men of European ancestry (Charchar et al., 2012), are essential to confirm our conclusion in the future.

## MATERIALS AND METHODS

### Participants

A total of 1212 unrelated patients with schizophrenia and 1005 healthy controls, all of Han Chinese origin, were recruited from Hunan Province, South Central China. The patients were clinically diagnosed according to Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV) and had at least two-year history of schizophrenia. Diagnosis and review of psychiatric case records were independently checked and verified by two senior psychiatrists prior to blood sample collection. Around 90% of these schizophrenia and related controls were analyzed in our previous study aimed to validate the reported risk alleles of GWAS (Ma et al., 2013). The control sample was composed of adult individuals who visited the local hospital for physical examination and were confirmed to be absent of psychiatric disorders. Informed consents were obtained from all participants or the supervisors of the patients (for those who were in bad condition and could not correctly assess the consent at the time of blood collection) prior to this study. The institutional review boards of Kunming Institute of Zoology and the Second Xiangya Hospital approved this study.

### mtDNA sequence analyses and haplogroup classification

Total genomic DNA was extracted from peripheral blood by using standard phenol/chloroform or spin-column method.

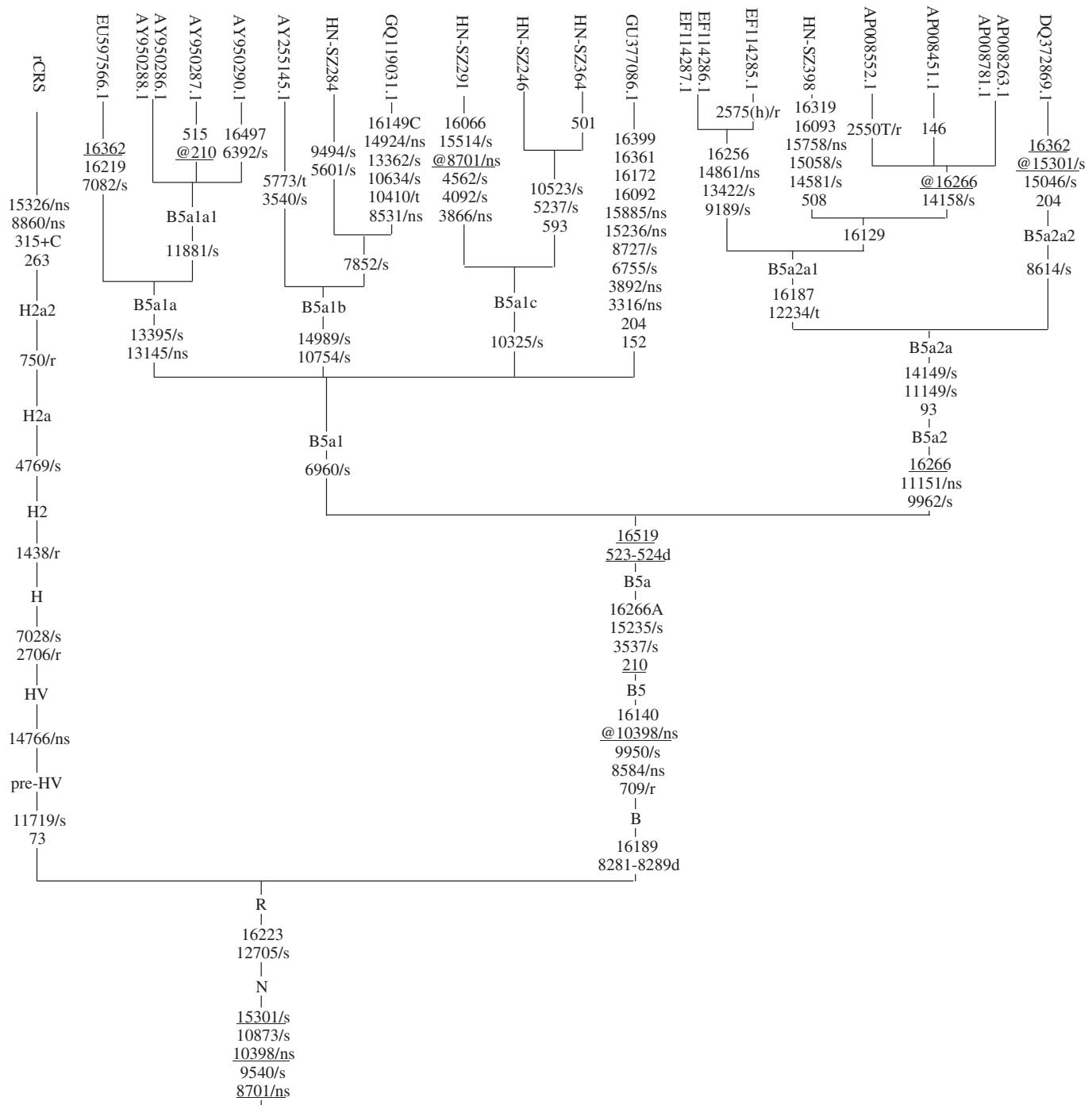


Fig. 5. Classification tree of five complete mtDNA sequences of Han Chinese with schizophrenia (prefixed with “HN-SZ”).

Sixteen reported mtDNA genomes (Kong et al., 2003; Tanaka et al., 2004; Thangaraj et al., 2005; Pierson et al., 2006; Wang et al., 2007; Hartmann et al., 2009; Tabbada et al., 2010; Zou et al., 2010) are shown, together with the revised Cambridge reference sequence (rCRS) (Andrews et al., 1999). The order of mutations/variants on each uninterrupted branch section is arbitrary. Recurrent variants are underlined and prefix “@” means back mutation. Suffix “+C” indicates an insertion of cytosine. The heteroplasmic status is marked by “(h)”. The synonymous and non-synonymous coding-region variants in the eleven mtDNAs are denoted by “/s” and “/ns”, respectively. Variations in the transfer RNA and the ribosomal RNA genes are denoted by “/t” and “/r”, respectively.

mtDNA control region sequences of all subjects were amplified and sequenced using our reported method (Method S1; Zhang et al., 2011). Each mtDNA was assigned into haplogroup following the same strategy and approach as described in our previous studies (Yao et al., 2002; Ji et al., 2008; Zhang et al., 2011). We used the latest version of mtDNA

classification system (mtDNA tree Build 16; <http://www.phylotree.org/>) for naming each haplogroup (van Oven and Kayser, 2009). We screened mtDNA coding-region motifs in some samples to confirm the haplogroup assignments. Five patients belonging to haplogroup B5a were selected for entire mtDNA genome sequencing, following our previously

described approach (Ji et al., 2008) with minor modifications (Method S1). We used MitoTool ([www.mitotoool.org](http://www.mitotoool.org); Fan and Yao, 2013) to double check mtDNA sequence variation and haplogroup classification. Sequences generated in this study are available in GenBank under accession numbers JF321294–JF322795, JQ730883–JQ731597 (for mtDNA control region) and JQ731598–JQ731602 (for complete mtDNA).

#### Statistical analyses, permutation tests and age estimation

Power calculations were performed using the Quanto software (Gauderman, 2002), although this software was specifically designed for autosomal data (Salas et al., 2009). Considering an average population minor allele frequency (MAF) of 10%, the power to detect odds ratio as low as 1.5 for a risk haplogroup was above 93% for the comparison between the patients and controls in this study.

To avoid potential bias caused by small sample size and to ensure the statistical power, we only considered these haplogroups shared by at least 30 individuals as variables in statistical analysis. Fisher's exact test (two-tailed) was performed using MitoTool (Fan and Yao, 2013) to quantify the frequency difference of certain haplogroup between case and control groups. A *P* value <0.05 was regarded as statistically significant. To further validate the prevalence of certain mtDNA haplogroups in schizophrenia patients, a permutation test (Test I) was performed with 1,000,000 replications for each haplogroup to examine the haplogroup enrichment in either the cases or controls, assuming that each haplogroup is uniformly distributed in the entire samples (Method S2). This test was powerful in detecting potential association between certain mtDNA haplogroup and schizophrenia in a reasonably large sample. Considering the necessity of replication in independent samples and unavailability of samples for replication, we designed an *in silico* method to solve this problem. A permutation test (Test II) was performed in two groups of independent populations, which were resampled with replacement from the case group (with half of the case population size) for 10,000 times, with an aim to simulate the replication of experimental results in parallel analyses. In each replication, we repeated Test I and estimated the posterior distribution of each mtDNA haplogroup. Both permutation tests were conducted using R software ([www.r-project.org](http://www.r-project.org)).

Principal component analysis (PCA) was performed based on the mtDNA haplogroup distribution frequency to show the overall clustering pattern of schizophrenia and control populations from Hunan with reported Han Chinese populations across China (Zhang et al., 2011 and references therein) using POPSTR software (<http://harpending.humanevo.utah.edu/popstr/>). Median-joining network (Bandelt et al., 1999) for these mtDNAs belonging to the schizophrenia-associated haplogroup in our samples was reconstructed by Network 4.5.1.6 (<http://www.fluxus-engineering.com/sharenet.htm>). The  $\rho$  and  $\sigma$  statistics were used for estimating age (Forster et al., 1996; Saillard et al., 2000).

To illustrate regional distribution pattern of the mtDNA haplogroup that was associated with schizophrenia and to

uncover its putative origin place, we (re)analyzed the previously reported mtDNA data from the general populations across China and neighboring regions (Table S4).

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#### SUPPLEMENTARY DATA

Table S1. mtDNA sequence variations of 2217 Han Chinese analyzed in this study.

Table S2. Private non-synonymous, mt-rRNA and mt-tRNA variants in B5a complete mtDNA sequences of Han Chinese patients with schizophrenia.

Table S3. Prevalence of schizophrenia across China.

Table S4. Published mtDNA data sets reanalyzed in this study.  
Method S1. Full descriptions for sequencing strategy, PCR conditions and primers used in this study.

Method S2. Details of permutation tests.

Supplementary data related to this article can be found at <http://dx.doi.org/10.1016/j.jgg.2014.05.004>.

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## Supplementary Materials

### A matrilineal genetic legacy from the Last Glacial Maximum confers susceptibility to schizophrenia in Han Chinese

Wen Zhang <sup>a,1</sup>, Jinsong Tang <sup>b,1</sup>, A-Mei Zhang <sup>a</sup>, Min-Sheng Peng <sup>c</sup>, Hai-Bing Xie <sup>c</sup>, Liwen Tan <sup>b</sup>, Lin Xu <sup>a</sup>, Ya-Ping Zhang <sup>c</sup>, Xiaogang Chen <sup>b,\*</sup>, Yong-Gang Yao <sup>a,\*</sup>

<sup>a</sup> Key Laboratory of Animal Models and Human Disease Mechanisms, Kunming Institute of Zoology, Chinese Academy of Sciences, Kunming 650223, China

<sup>b</sup> The Institute of Mental Health, the Second Xiangya Hospital, Central South University, Changsha 410011, China

<sup>c</sup> State Key Laboratory of Genetic Resources and Evolution, Kunming Institute of Zoology, Chinese Academy of Sciences, Kunming 650223, China

<sup>1</sup> These authors contributed equally to this work

\* Corresponding authors. Tel/Fax: +86 871 6518 0085.

E-mail addresses: ygyaozh@gmail.com (Y.-G. Yao); chenxghn@gmail.com (X. Chen).

Method S1. Full descriptions for sequencing strategy, PCR conditions and primers used in this study.

Method S2. Details of permutation tests.

Table S1. mtDNA sequence variations of 2217 Han Chinese analyzed in this study

Table S2. Private non-synonymous, mt-rRNA and mt-tRNA variants in B5a complete mtDNA sequences of Han Chinese patients with schizophrenia

Table S3. Prevalence of schizophrenia across China

Table S4. Published mtDNA data sets reanalyzed in this study

## Method S1. Full descriptions for mtDNA sequencing strategy, PCR

### conditions and primers used in this study.

The entire mtDNA control region was amplified by using primer pair 1F and 1R (see Primer table). PCR reactions were performed in a volume of 50 µL reaction mixture containing 5 µL 10×LA PCR Buffer II ( $Mg^{2+}$  Plus), 1.5 units of TaKaRa LA Taq (TaKaRa Bio Inc., Dalian, China), 200 µM of each dNTP, 0.2 µM of each primer, and 50 ng DNA. The amplification was run on the GeneAmp PCR System 9700 (Applied Biosystems, Foster City, CA, USA) with the following procedures: one denaturation cycle at 94 °C for 5 min; 30 amplification cycles of 94 °C for 30 s, 52 °C for 30 s and 72 °C for 2 min; and one full extension cycle at 72 °C for 10 min. PCR products were purified on spin columns (Watson Biotechnologies Inc., Shanghai, China) and were directly sequenced by using 7 primers (see Primer table). For complete mtDNA sequencing, we used 9 pairs of primers to amplify the entire mtDNA genome. PCR amplification for each fragment was performed using the same condition for mtDNA control region, with modifications for annealing temperature (see Primer table). We used the PCR primers and inner primers for sequencing (see Primer table).

Primer table. Primers for mtDNA control region amplification and sequencing

| Primer name                                | Annealing Tm (°C) | Sequence (5'-3')                                   |
|--|-------------------|--|
| <b>PCR amplification</b>                   |                   |  |
| 1F/ 1R                                     | 52                | CGCCTACACAATTCTCCGATC /<br>ACTTGGGTTAACCGTGTGACC   |
| 2F/2R                                      | 56                | TGCAAGCATCCCCGTTCC /<br>TGAACTCAGATCACGTAGGAC      |
| 3F/3R                                      | 52                | GTCCTAAACTACCAAACCTG /<br>GGAATGCGGTAGTAGTTAGG     |
| 4F/4R                                      | 56                | TGACAAAAACTAGCCCCCATCT /<br>GCACTGCAGCAGATCATTTC   |
| 5F/5R                                      | 56                | CCTGGAGCCTCCGTAGACCT /<br>GAGCGAAAGCCTATAATCACTG   |
| 6F/6R                                      | 56                | ACAATCCTAGGCCTACCCG /<br>TTCGCAGGCGGCAAAGACTA      |
| 7F/7R                                      | 56                | ACATAGAAAATCCACCCCTACG /<br>CTAGTATGTTGAGTCCTGTA   |
| 8F/8R                                      | 56                | CGCAGTCATTCTCATAATGCCACGG /<br>TGGTTAACATTGTTGTTGG |
| 9F/9R                                      | 56                | TCACAGCACCAAATCTCCAC /<br>GTCAATACTGGGTGGTACC      |
| <b>For mtDNA control region sequencing</b> |                   |  |
| L15996                                     |                   | CTCCACCATTAGCACCCAAAGC                             |
| L16209                                     |                   | CCCCATGCTTACAAGCAAGT                               |
| L29  |                   | GGTCTATCACCCATTAAACCAC                             |
| L333                                       |                   | GCTTCTGGCCACAGCACT                                 |

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|                                    |                           |
|------------------------------------|---------------------------|
| H16498                             | CCTGAAGTAGGAACCAGATG      |
| H408                               | CTGTTAAAAGTGCATAACGCCA    |
| MT-R1                              | ACTTGGGTTAACGTGTGACC      |
| For mtDNA coding region sequencing |                           |
| 2F                                 | TGCAAGCATCCCCGTTCC        |
| L1156                              | GAACACTACGAGGCCACAGC      |
| L1466                              | GAGTGCTTAGTTAACAGGGCC     |
| L1776                              | AATTGAAACCTGGCGCAATAG     |
| L2025                              | GCCTGGTGTAGCTGGTTGTCC     |
| L2415                              | ACCAACAAGTCATTATTACCC     |
| 3F                                 | GTCCTAAACTACCAAACCTG      |
| L3179                              | AGCGCCTTCCCCGTAAATG       |
| L3644                              | GCCACCTCTAGCCTAGCCGT      |
| L4210                              | CCACTCACCCTAGCATTACTTA    |
| L4499                              | TGGCCCAACCCGTATCTAC       |
| 4F                                 | TGACAAAAACTAGCCCCATCT     |
| L5278                              | TGGGCCATTATCGAAGAATT      |
| L5781                              | AGCCCCGGCAGGTTGAAGC       |
| 5F                                 | CCTGGAGCCTCCGTAGACCT      |
| L6869                              | CCGGCGTCAAAGTATTTAGC      |
| L7356                              | GAAGCGAAAAGTCCTAATAG      |
| L7882                              | TCCCTCCCTTACCATCAAATCA    |
| L8215                              | ACAGTTCATGCCATCGTC        |
| 6F                                 | ACAATCCTAGGCCTACCCG       |
| L9198                              | AGCCTCTACCTGCACGAC        |
| L9580                              | CAACAGGCATCACCCGCTAAA     |
| L9794                              | GACGGCATCTACGGCTAACAA     |
| 7F                                 | ACATAGAAAAATCCACCCCTTACG  |
| L10519                             | TAGCATTACCATCTCACTTCT     |
| L11004                             | ACAATCATGGCAAGCCAACG      |
| L11338                             | CAAACCTCTGAGCCAACAAAC     |
| 8F                                 | CGCAGTCATTCTCATAATGCCACGG |
| L12028                             | GGCTCACTCACCCACACATT      |
| L12334                             | GGTGCAACTCCAAATAAAG       |
| L12572                             | ACAACCCAGCTCTCCCTAAG      |
| L13049                             | GAECTCCCTCAGCCATAGA       |
| L13612                             | AAGCGCCTATAGCACTCGAA      |
| 9F                                 | TCACAGCACCAAACTCCAC       |
| L14575                             | ACCCGACCAACACCGCTAACAA    |
| L14989                             | ATGGCTGAATCATCCGCTAC      |
| L15391                             | TAGGAATCACCTCCCATTCC      |
| L15575                             | ACACAAATTCTCCGATCCGTC     |

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Note - All the above primers (except for H16498) were previously described in our previous study (Wang et al., 2008).

## Method S2. Details of permutation tests

We used the Fisher's Exact test (two tailed) to quantify the frequency difference of certain haplogroup between case and control groups with significance level lower than 0.05. This multiple testing, i.e. each haplogroup was tested in the same dataset, should be best performed with correction. However, performing such a test with correction the p-value cutoff should be considerably low, otherwise it is most likely to lead to insignificant results. Indeed, we obtained no significant value for haplogroup B5a in this study after Bonferroni's correction ( $P$  value = 0.484). In order to avoid such a problem, we designed a permutation test (Test I) to assess which of the haplogroups consistently looks different than the others in schizophrenia patients. Details for Test I (taking haplogroup B5a as an example) were listed below:

- (1) Assume that individuals belonging to haplogroup B5a are uniformly distributed in the entire population, without any distribution bias between cases and controls. Each individual has two tags: patient or control and B5a or non-B5a.
- (2) Simulate a population with a size of 2217 (sample size of this study), and each individual has the above two tags.
- (3) Randomly choose 1212 individuals and tag them as patients, and the remaining 1005 as normal controls in the simulated population. This is implemented in a numeric vector (Vector I) with 2217 elements. Patients are denoted as 1, and controls as 0.
- (4) Randomly choose 98 individuals and tag them as haplogroup B5a and the remaining 2119 as non-B5a in the simulated population. This is implemented in a numeric vector (Vector II) with 2217 elements. Individuals belonging to haplogroup B5a are denoted as 1, and non-B5a as 0.
- (5) Count the number of individuals tagged both as patients (Vector I) and haplogroup B5a (Vector II) in the simulated population. Also count the number of individuals tagged both as controls (Vector I) and haplogroup B5a (Vector II).
- (6) Step 2-5 with 1,000,000 replicates.
- (7) Statistical significance calculation. The posterior probability ( $PP$ -I) is given as the fraction of replicates in which the observed number of individuals belonging to B5a during the simulation that was larger than 64 (for cases) or fewer than 34 (for controls). For a haplogroup with an odds ratio (OR) < 1, the  $PP$ -I value is given as the fraction of replicates in which the observed number of individuals belonging to certain haplogroup during the simulation that was fewer than "observed number of individuals in case group + 1" (for cases) or larger than "observed number of individuals in control group - 1" (for controls).

It is currently a commonly accepted measure in disease association studies to perform a replication analysis of the association study in an independently gathered population.

Nevertheless, these measures are usually asked by people who perform genome-wide analysis of nuclear DNA-encoded polymorphisms. However, since mtDNA variation profoundly differ among populations, such an analysis in the mtDNA world should be performed only in samples gathered at the same geographic areas and belonging to the same ethnicities. Considering the unavailability of sufficient samples for replication, we designed a permutation test (Test II) to solve this problem. This test was performed in two groups of independent populations, which were resampled with replacement from the case group (with half of the case population size) for 10,000 times, with an aim to simulate the replication of experimental

results in parallel analyses. Details for Test II (taking haplogroup B5a as an example) were listed below:

- (1) Assume that individuals belonging to haplogroup B5a are uniformly distributed in the entire population, without any distribution bias between cases and controls. Each individual has two tags: patient or control and B5a or non-B5a.
- (2) Simulate a population of cases with a size of 1212, of which 33 individuals belong to haplogroup B5a. This is implemented in a numeric vector (Vector A) with 1212 elements. Individuals belonging to haplogroup B5a are denoted as 1, and non-B5a as 0.
- (3) Randomly sample 606 individuals (Population I) from the case population with replacement. The number of individuals belonging to haplogroup B5a in Population I is counted as **N**.
- (4) Simulate a population of controls (Population II) with a size of 1005, of which 33 individuals belong to haplogroup B5a. This is implemented in a numeric vector (Vector A) with 1005 elements. Individuals belonging to haplogroup B5a are denoted as 1, and non-B5a as 0.
- (5) Mix Population I and Population II as Population III. This is implemented in a numeric vector (Vector B) with 1611 elements. Individuals in Population I (606 cases) are denoted as 1, and Individuals in Population II (1005 controls) as 0.
- (6) Therefore, in Population III, **N+33** individuals belonged to haplogroup B5a and the number of non-B5a individuals is 1611-(**N+33**).
- (7) Simulate a population (Population IV) with a size of 1611 (606 + 1005), and each individual has the above two tags.
- (8) Randomly choose 606 individuals and tag as patients and the remaining 1005 as normal controls in the simulated Population IV. This is implemented in a numeric vector (Vector I) with 1611 elements. Patients are denoted as 1, and controls as 0.
- (9) Randomly choose **N+33** individuals and tag as haplogroup B5a, and the remaining 1611-(**N+33**) individuals as non-B5a in the simulated Population IV. This is implemented in a numeric vector (Vector II) with 1611 elements. Individuals belonging to haplogroup B5a are denoted as 1, and non-B5a as 0.
- (10) Count the number of individuals tagged both as patients (Vector I) and haplogroup B5a (Vector II) in the simulated Population IV.
- (11) Step 7-10 with 10,000 replicates.
- (12) Statistical significance calculation. The posterior probability (*PP-I*) is given as the fraction of replicates in which the observed number of individuals belonging to B5a during the simulation that was larger than **N-1** (for cases) or fewer than 34 (for controls).
- (13) Step 3-12 with 10,000 replicates. Then we harvest 10,000 *PP-I* values which were denoted as  $PP_1 \sim PP_{10000}$ .
- (14) Step 1-13 with one replicate as a parallel analysis. Then we harvest 10,000 *PP-I'* values which were denoted as  $PP_1' \sim PP_{10000}'$ .
- (15) Treat  $PP_n$  and  $PP_n'$  as an independent replication study, we get 10,000 sets of ( $PP_n$ ,  $PP_n'$ ). We define the *PP-II* as the percentage of sets that with one of the three following conditions: a.  $PP_n < 0.05$  and  $PP_n' < 0.05$ ; b.  $PP_n < 0.05$  and  $PP_n' > 0.05$ ; c.  $PP_n > 0.05$  and  $PP_n' < 0.05$ .

By enacting Test II, we are able to simulate independent validation and significantly strengthen the analysis. Both permutation tests were conducted using R software ([www.r-project.org](http://www.r-project.org)). The code is available upon request.

Table S1. mtDNA sequence variations of 2217 Han Chinese analyzed in this study

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>  | Region 2 <sup>b</sup>   | Coverage <sup>c</sup> | Additional polymorphisms <sup>e</sup>                              |
|---------------------|------------|---------------------------------|---|-----------------------|--|
| HN-CT425            | A          | 124 223 290 319 344 519         | 73 235 263 309+2C 315+C 318 523-524d 663 750                    | 16025-16569/1-921     |  |
| HN-CT56             | A          | 189 223 290 311 319             | 73 151 152 235 263 315+C 523-524d 663 750                       | 16010-16569/1-921     |  |
| HN-CT360            | A          | 223 260 290 319                 | 64 73 146 195 235 263 309+C 315+C 523-524d 663 750              | 16012-16569/1-911     |  |
| HN-CT170            | A          | 223 287 290 311 317 319 519     | 73 235 263 309+C 315+C 318 523-524d 663 750                     | 16013-16569/1-911     |  |
| HN-CT523            | A          | 223 290 293C 319 519            | 73 152 235 263 315+C 523-524d 663 750                           | 16042-16569/1-921     |  |
| HN-CT598            | A          | 223 290 293C 319 519            | 73 152 235 263 315+C 523-524d 663 750                           | 16012-16569/1-921     |  |
| HN-CT528            | A          | 223 290 293C 319 519            | 73 152 263 309+C 315+C 523-524d 663 750                         | 16023-16569/1-911     |  |
| HN-CT669            | A          | 223 290 319 519                 | 64 73 146 151 235 263 309+C 315+C 523-524d 663 750              | 16012-16569/1-921     |  |
| HN-CT108            | A          | 223 290 319 519                 | 73 151 152 235 263 309+C 315+C 523-524d 663 750                 | 16016-16569/1-921     |  |
| HN-CT39             | A          | 223 290 319 519                 | 73 152 235 263 315+C 318 523-524d 663 750                       | 16009-16569/1-921     |  |
| HN-CT291            | A          | 223 290 319 519                 | 73 152 235 263 315+C 318 523-524d 663 750                       | 16012-16569/1-921     |  |
| HNCT2-416           | A          | 124 223 290 319 519             | 73 235 263 309+C 315+C 318 523-524d 663 750                     | 16014-16569/1-836     |  |
| HNCT2-420           | A          | 126 223 235 290 319 519         | 73 235 263 309+C 315+C 515 523-524d 663 750                     | 16014-16569/1-806     |  |
| HNCT2-480           | A          | 129 223 290 319 362             | 73 152 207 235 309+C 315+C 523-524d 663 750                     | 16014-16569/1-908     |  |
| HNCT2-494           | A          | 223 290 319 362                 | 73 151 152 200 235 263 315+C 523-524d 663 735 750               | 16013-16569/1-836     |  |
| HNCT2-515           | A          | 223 290 311 319 362 519         | 73 152 234 235 263 315+C 523-524d 663                           | 16013-16569/1-670     |  |
| HNCT2-519           | A          | 223 290 319 362                 | 73 152 235 309+C 315+C 341 523-524d 663 750                     | 16013-16569/1-851     |  |
| HNCT2-543           | A          | 223 241C 290 319 362            | 73 200 235 263 315+C 523-524d 663 750                           | 16013-16569/1-836     |  |
| HNCT2-552           | A          | 189 223 290 319 362             | 73 152 235 263 309+C 315+C 523-524d 654 663 750                 | 16013-16569/1-836     |  |
| HNCT2-566           | A          | 126 223 235 290 319 519         | 73 235 263 309+C 315+C 523-524d 663 750                         | 16013-16569/1-826     |  |
| HNCT2-568           | A          | 086 223 290 319 362 463         | 73 151 152 200 235 263 315+C 523-524d 663 735 750               | 16013-16569/1-826     |  |
| HNCT2-598           | A          | 207 223 290 319 362             | 73 152 207 235 309+C 315+C 523-524d 663 750                     | 16013-16569/1-865     |  |
| HNCT2-603           | A          | 126 223 234 290 311 319 445 519 | 73 235 263 309+C 315+C 523-524d 663 750                         | 16013-16569/1-806     |  |
| HNCT2-621           | A          | 223 290 319 362 368             | 73 200 235 263 309+C 315+C 523-524d 663 750                     | 16013-16569/1-826     |  |
| HNCT2-653           | A          | 223 290 319 362                 | 73 151 152 200 235 263 309+C 315+C 523-524d 663 750             | 16013-16569/1-806     |  |
| HNCT2-666           | A          | 223 290 319 362                 | 73 152 235 315+C 503 523-524d 663 750                           | 16013-16569/1-836     |  |
| HNCT2-668           | A          | 183C 189 223 290 319 362        | 73 152 200 235 263 315+C 523-524d 663 750                       | 16013-16569/1-783     |  |
| HN-CT383            | A          | 111 223 269 290 319 362         | 73 151 152 200 235 263 309+C 315+C 523-524d 663 735 750         | 16024-16569/1-921     |  |
| HN-CT205            | A          | 129 223 290 319 362             | 73 152 200 204 235 263 309+2C 315+C 523-524d 663 750            | 16012-16569/1-921     |  |
| HN-CT232            | A          | 129 223 290 319 362             | 73 152 200 204 235 263 309+C 315+C 523-524d 663 750             | 16018-16569/1-878     |  |
| HN-CT33             | A          | 179 223 290 311 319 362         | 73 152 235 263 315+C 522-523d 524 663 750                       | 16032-16569/1-921     |  |
| HN-CT516            | A          | 189 196 223 290 311 319 362     | 73 152 235 263 315+C 523-524d 663 750                           | 16009-16569/1-921     |  |
| HN-CT252            | A          | 192 207 223 290 319 362         | 73 152 207 235 309+C 315+C 523-524d 663 750                     | 16022-16569/1-921     |  |
| HN-CT12             | A          | 223 287 290 319 362             | 73 114 151 152 200 235 263 309+C 315+C 523-524d 663 709 735 750 | 16079-16569/1-921     |  |
| HN-CT272            | A          | 223 287 290 319 362             | 73 114 151 152 200 235 263 309+C 315+C 523-524d 663 709 735 750 | 16013-16569/1-911     |  |
| HN-CT393            | A          | 223 290 319 362                 | 73 146 152 235 263 309+C 315+C 524+AC 663 750                   | 16032-16569/1-921     |  |
| HN-CT561            | A          | 223 290 319 362                 | 73 151 152 200 235 263 309+C 315+C 523-524d 663 735 750         | 16013-16569/1-921     |  |
| HN-CT509            | A          | 223 290 319 362                 | 73 151 152 235 263 309+2C 315+C 488 523-524d 663 735 750        | 16017-16569/1-921     |  |
| HN-CT28             | A          | 223 290 319 362                 | 73 152 200 235 263 309+C 315+C 523-524d 663 750                 | 16025-16569/1-921     |  |
| HN-CT416            | A          | 223 290 319 362                 | 73 152 207 235 309+C 315+C 523-524d 663 750                     | 16021-16569/1-911     |  |
| HN-CT497            | A          | 223 290 319 362                 | 73 152 235 263 309+2C 315+C 523-524d 663 750                    | 16012-16569/1-921     |  |
| HN-CT396            | A          | 223 290 319 362                 | 73 152 235 263 309+C 315+C 523-524d 663 750                     | 16013-16569/1-921     |  |
| HN-CT554            | A          | 223 290 319 362                 | 73 152 235 263 309+C 315+C 523-524d 663 750                     | 16013-16569/1-806     |  |
| HN-CT590            | A          | 223 290 319 362                 | 73 152 235 263 309+C 315+C 523-524d 663 750                     | 16012-16569/1-921     |  |
| HN-CT617            | A          | 223 290 319 362                 | 73 152 235 263 315+C 450 523-524d 663 750                       | 16043-16569/1-921     |  |
| HN-CT104            | A          | 223 290 319 362                 | 73 152 235 315+C 450 523-524d 573+C 663 750                     | 16016-16569/1-921     |  |
| HN-CT107            | A          | 223 290 319 362 497             | 73 152 200 235 263 309+2C 315+C 523-524d 663 750                | 16015-16569/1-921     |  |
| HN-CT22             | A          | 223 290 319 362 519             | 73 151 152 200 235 263 315+C 523-524d 663 735 750               | 16019-16569/1-921     |  |
| HN-CT171            | A          | 223 290 362                     | 73 204 207 235 309+C 315+C 523-524d 663 750                     | 16027-16569/1-863     |  |
| HN-CT531            | A          | 093 223 290 319 362             | 73 152 182 200 235 263 315+C 523-524d 663 750 789               | 16047-16569/1-921     |  |
| HN-CT115            | A          | 126 223 234 235 290 319 519     | 73 235 263 309+C 315+C 663 750                                  | 16013-16569/1-921     |  |
| HN-CT385            | A          | 126 223 235 290 319 519         | 73 235 263 309+C 315+C 523-524d 663 750                         | 16015-16569/1-921     |  |
| HN-CT672            | A          | 126 223 235 290 319 519         | 73 235 263 315+C 523-524d 663 750                               | 16013-16569/1-902     |  |
| HN-CT692            | A          | 223 290 319 344 362             | 73 146 152 235 263 309+C 315+C 523-524d 654 663 750             | 16013-16569/1-921     |  |
| HN-CT565            | A          | 090 201 223 274 290 319 362 400 | 73 151 152 188 235 263 315+C 523-524d 654 663 750               | 16013-16569/1-921     |  |
| HN-CT544            | B          | 129 182C 183C 189 261 311       | 73 93 263 315+C 523-524d 750                                    | 16013-16569/1-921     | +  |
| HN-CT446            | B          | 129 182C 183C 189 261 519       | 73 263 309+2C 315+C 523-524d 750                                | 16080-16569/1-833     | +  |
| HN-CT23             | B          | 153 182C 183C 189 261 360 519   | 73 263 309+2C 315+C 523-524d 750                                | 16010-16569/1-911     | +  |
| HN-CT553            | B          | 051 092 126 182C 183C 189 519   | 73 146 151 263 306-309d 315+C 356+C 750                         | 16013-16569/1-921     | +  |
| HN-CT591            | B          | 051 092 126 182C 183C 189 519   | 73 146 151 263 306-309d 315+C 356+C 750                         | 16012-16569/1-921     | +  |
| HN-CT268            | B4         | 182C 183C 189 217 357           | 73 150 152 195 263 279 309+C 315+C 750                          | 16060-16569/1-921     |  |
| HNCT2-599           | B4         | 129 182C 183C 189 261 519       | 73 189 195 263 309+C 315+C 523-524d 750                         | 16013-16569/1-908     |  |
| HNCT2-618           | B4         | 182C 183C 189 217 527           | 73 214 263 315+C 368 523-524d 709 750                           | 16013-16569/1-755     | 7917-8733=8281-8289d; 15040-15760=15326 15535<br>15040-15760=15326 |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>               | Region 2 <sup>b</sup>                            | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281_8-289d | 8718 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|--|--|-----------------------|------------------------|-------------|------|---------------------------------------|
| HN-CT356            | B4a'g      | 129 140 182C 183C 189 217 261 311            | 73 94 146 263 315+C 523-524d 750                 | 16033-16569/1-921     |                        |             |      |                                       |
| HN-CT310            | B4a'g      | 129 182C 183C 189 217 242 261                | 73 146 263 309+C 315+C 523-524d 750              | 16012-16569/1-911     |                        |             |      |                                       |
| HN-CT175            | B4a'g      | 129 182C 183C 189 217 261 362 519            | 73 263 309-310d 458 477 523-524d 709 750         | 16080-16569/1-921     |                        |             |      |                                       |
| HN-CT180            | B4a'g      | 182C 183C 189 217 261 299 519                | 73 193 228T 263 309+2C 315+C 523-524d 709 750    | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT290            | B4a'g      | 182C 183C 189 217 261 327 519                | 73 146 263 309+2C 315+C 523-524d 709 750         | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT463            | B4a'g      | 182C 183C 189 217 261 327 519                | 73 146 263 309+C 315+C 523-524d 709 750          | 16009-16569/1-911     |                        |             |      |                                       |
| HN-CT711            | B4a'g      | 092 182C 183C 189 193-C 194C 195 217 261 519 | 73 211 263 309+2C 315+C 593 523-524d 709 750 813 | 16012-16569/1-921     |                        |             |      |                                       |
| HNCT2-432           | B4a'g      | 182C 183C 186 189 217 261 299 519            | 73 193 263 315+C 523-524d 709 750                | 16014-16569/1-806     |                        |             |      |                                       |
| HNCT2-498           | B4a'g      | 129 182C 183C 189 217 221A 261 519           | 73 263 309-310d 523-524d 709 750                 | 16012-16569/1-908     |                        |             |      |                                       |
| HNCT2-554           | B4a'g      | 129 182C 183C 189 217 261 519                | 71+G 73 263 315+C 523-524d 709 750               | 16013-16569/1-836     |                        |             |      |                                       |
| HN-CT451            | B4a'g      | 129 182C 183C 189 217 261                    | 73 263 309+2C 315+C 523-524d 750                 | 16058-16569/1-790     |                        |             |      |                                       |
| HN-CT92             | B4a'g      | 129 182C 183C 189 217 261                    | 73 263 309+3C 315+C 523-524d 750                 | 16082-16569/1-921     |                        |             |      |                                       |
| HN-CT281            | B4a'g      | 129 182C 183C 189 217 261                    | 73 93 199 263 315+C 523-524d 750                 | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT517            | B4a'g      | 129 182C 183C 189 217 261 311                | 73 263 309+2C 315+C 459A 523-524d 750            | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT593            | B4a'g      | 129 182C 183C 189 217 261 311                | 73 263 309+2C 315+C 459A 523-524d 750            | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT212            | B4a'g      | 129 182C 183C 189 217 261 354                | 73 263 309+2C 315+C 523-524d 750                 | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT407            | B4a'g      | 129 182C 183C 189 217 261 354                | 73 263 309+2C 315+C 523-524d 750                 | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT433            | B4a'g      | 166C 182C 183C 189 217 254 261 360 519       | 73 152 263 309+2C 315+C 523-524d 750             | 16009-16569/1-909     |                        |             |      |                                       |
| HN-CT51             | B4a'g      | 168 182C 183C 189 217 261 311 519            | 73 263 309+2C 315+C 523-524d 750 794             | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT459            | B4a'g      | 182C 183C 189 212 217 261 319 327 519        | 73 152 263 309+C 315+C 523-524d 750              | 16079-16569/1-767     |                        |             |      |                                       |
| HN-CT347            | B4a'g      | 182C 183C 189 217 219 261 286 519            | 73 200 263 309+C 315+C 523-524d 750              | 16017-16569/1-911     |                        |             |      |                                       |
| HN-CT386            | B4a'g      | 182C 183C 189 217 234 261 519                | 73 195 263 315+C 523-524d 750                    | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT623            | B4a'g      | 182C 183C 189 217 256 261 360 519            | 73 152 263 309+2C 315+C 523-524d 750             | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT694            | B4a'g      | 182C 183C 189 217 261                        | 73 195 263 315+C 523-524d 750                    | 16013-16569/1-891     |                        |             |      |                                       |
| HN-CT605            | B4a'g      | 182C 183C 189 217 261                        | 73 263 309+2C 315+C 523-524d 750                 | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT345            | B4a'g      | 182C 183C 189 217 261                        | 73 263 315+C 523-524d 750                        | 16070-16569/1-921     |                        |             |      |                                       |
| HN-CT68             | B4a'g      | 182C 183C 189 217 261 299 355 390 519        | 73 263 309+2C 315+C 750                          | 16033-16569/1-921     |                        |             |      |                                       |
| HN-CT533            | B4a'g      | 182C 183C 189 217 261 327 519                | 73 152 263 309+3C 315+C 523-524d 750 801h        | 16039-16569/1-921     |                        |             |      |                                       |
| HN-CT172            | B4a'g      | 182C 183C 189 217 261 360                    | 73 263 309+2C 315+C 523-524d 750                 | 16032-16569/1-878     |                        |             |      |                                       |
| HN-CT462            | B4a'g      | 182C 183C 189 217 261 360 380 519            | 73 263 315+C 523-524d 750                        | 16043-16569/1-814     |                        |             |      |                                       |
| HN-CT89             | B4a'g      | 182C 183C 189 217 261 360 519                | 73 150 226h 263 315+C 523-524d 750               | 16082-16569/1-921     |                        |             |      |                                       |
| HN-CT69             | B4a'g      | 092 182C 183C 189 217 261 357 399 519        | 64 73 152 263 309+2C 315+C 485 523-524d 750      | 16090-16569/1-921     |                        |             |      |                                       |
| HN-CT495            | B4a'g      | 092 182C 183C 189 217 261 399 519            | 73 152 263 309+2C 315+C 523-524d 750             | 16018-16569/1-921     |                        |             |      |                                       |
| HN-CT708            | B4a'g      | 093 182C 183C 189 217 219 261 286 519        | 73 263 309+C +2C 315+C 523-524d 750              | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT74             | B4a'g      | 093 182C 183C 189 217 257A 261 526           | 73 195 263 315+C 750                             | 16082-16569/1-921     |                        |             |      |                                       |
| HN-CT525            | B4a'g      | 093 182C 183C 189 217 261                    | 73 263 315+C 750                                 | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT601            | B4a'g      | 093 182C 183C 189 217 261                    | 73 263 315+C 750                                 | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT714            | B4a'g      | 093 182C 183C 189 217 261                    | 73 263 315+C 750                                 | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT699            | B4a'g      | 093 182C 183C 189 217 261                    | 73 263 315+C 750                                 | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT637            | B4a'g      | 093 182C 183C 189 217 261 357 519            | 73 263 309+C 315+C 523-524d 750                  | 16037-16569/1-921     |                        |             |      |                                       |
| HNCT2-404           | B4a'g      | 182C 183C 189 217 261 519                    | 73 263 309+C 315+C 523-524d 750                  | 16013-16569/1-873     |                        |             |      |                                       |
| HNCT2-405           | B4a'g      | 093 169 182C 183C 189 217 261 357 519        | 73 263 309+2C 315+C 523-524d 750                 | 16013-16569/1-806     |                        |             |      |                                       |
| HNCT2-431           | B4a'g      | 182C 183C 189 217 261                        | 73 195 263 309+2C 315+C 523-524d 750             | 16014-16569/1-908     |                        |             |      |                                       |
| HNCT2-450           | B4a'g      | 182C 183C 189 217 261                        | 73 263 309+2C 315+C 466 523-524d 750             | 16038-16569/1-908     |                        |             |      |                                       |
| HNCT2-470           | B4a'g      | 182C 183C 189 217 261                        | 73 263 315+C 481 750                             | 16013-16569/1-840     |                        |             |      |                                       |
| HNCT2-533           | B4a'g      | 129 182C 183C 189 217 261                    | 73 93 263 309+2C 315+C 523-524d                  | 16013-16569/1-640     |                        |             |      |                                       |
| HNCT2-545           | B4a'g      | 093 182C 183C 189 217 261                    | 73 263 315+C 750                                 | 16013-16569/1-836     |                        |             |      |                                       |
| HNCT2-559           | B4a'g      | 182C 183C 189 217 219 261 286 519            | 73 227 263 309+C 315+C 523-524d 750              | 16013-16569/1-806     |                        |             |      |                                       |
| HNCT2-587           | B4a'g      | 182C 183C 189 217 261 519                    | 73 263 309+2C 315+C 523-524d 750                 | 16013-16569/1-810     |                        |             |      |                                       |
| HNCT2-602           | B4a'g      | 182C 183C 186 189 217 261 360                | 73 263 315+C 523-524d 750                        | 16013-16569/1-873     |                        |             |      |                                       |
| HNCT2-614           | B4a'g      | 182C 183C 189 217 261                        | 73 146 151 152 263 309+2C 315+C 523-524d         | 16013-16569/1-658     |                        |             |      |                                       |
| HNCT2-637           | B4a'g      | 129 182C 183C 189 217 261 319 497            | 73 263 309+2C 315+C 523-524d 750                 | 16013-16569/1-908     |                        |             |      |                                       |
| HNCT2-679           | B4a'g      | 093 182C 183C 189 217 261                    | 73 263 315+C 750                                 | 16013-16569/1-826     |                        |             |      |                                       |
| HN-CT279            | B4b        | 131 136 183C 189 217 218 519                 | 73 263 309+C 315+C 499 523-524d 750 827          | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT392            | B4b        | 136 182C 183C 189 217 218 519                | 73 152 263 309+2C 315+C 499 750 827              | 16090-16569/1-921     |                        |             |      |                                       |
| HN-CT426            | B4b        | 136 182C 183C 189 217 218 519                | 73 263 309+2C 315+C 499 750 827                  | 16063-16569/1-921     |                        |             |      |                                       |
| HN-CT288            | B4b        | 136 182C 183C 189 217 290A 293C 519          | 73 146 263 309+2C 315+C 499 750 827              | 16026-16569/1-921     |                        |             |      |                                       |
| HN-CT322            | B4b        | 136 182C 183C 189 217 519                    | 73 207 263 309+C 315+C 499 750 827               | 16012-16569/1-911     |                        |             |      |                                       |
| HN-CT183            | B4b        | 136 183C 189 217 218 239 248 519             | 73 152 263 315+C 499 750 827                     | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT116            | B4b        | 136 183C 189 217 218 311 519                 | 73 263 309+C 315+C 499 750 827                   | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT306            | B4b        | 136 183C 189 217 218 519                     | 73 152 263 309+2C 315+C 499 750 827              | 16047-16569/1-921     |                        |             |      |                                       |
| HN-CT470            | B4b        | 136 183C 189 217 218 519                     | 73 227 263 309+C 315+C 499 636 750 827           | 16013-16569/1-911     |                        |             |      |                                       |
| HN-CT65             | B4b        | 136 183C 189 217 257 519                     | 73 207 263 315+C 499 750 827                     | 16033-16569/1-921     |                        |             |      |                                       |
| HN-CT487            | B4b        | 136 183C 189 217 284 519                     | 73 199 202 207 263 309+2C 315+C 499 750 827      | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT286            | B4b        | 136 183C 189 217 298 519                     | 73 152 263 309+2C 315+C 333 499 750 827          | 16032-16569/1-878     |                        |             |      |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>                         | Region 2 <sup>b</sup>                           | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281_B-289d | 8718 | Additional polymorphisms <sup>e</sup>                   |
|---------------------|------------|--|---|-----------------------|------------------------|-------------|------|---|
| HN-CT188            | B4b        | 136 183C 189 217 519                                   | 73 207 263 309+C 315+C 499 750 827              | 16012-16569/1-921     |                        |             |      |   |
| HN-CT26             | B4b        | 136 183C 189 217 519                                   | 73 93 207 263 315+C 440 499 750 827             | 16009-16569/1-921     |                        |             |      |   |
| HN-CT530            | B4b        | 183C 189 217 519                                       | 73 207 263 315+C 499 750 827                    | 16037-16569/1-921     |                        |             |      |   |
| HNCT2-408           | B4b        | 136 183C 189 217 309 354 519                           | 73 207 263 315+C 499 523-524d 750 827           | 16013-16569/1-836     |                        |             |      |   |
| HNCT2-430           | B4b        | 136 182C 183C 189 217 309 354 519                      | 73 207 263 315+C 499 750 827                    | 16013-16569/1-836     |                        |             |      |   |
| HNCT2-444           | B4b        | 136 182C 183C 189 217 261 298 519                      | 73 150 152 263 315+C 357 499 737 750 827        | 16014-16569/1-836     |                        |             |      | 4529-5098=4820  |
| HNCT2-507           | B4b        | 136 182C 183C 189 217 309 354 519                      | 73 263 309+2C 315+C 498 499                     | 16012-16569/1-669     |                        |             |      |   |
| HNCT2-604           | B4b        | 086 136 183C 189 217 519                               | 73 146 207 263 309+C 315+C 408A 499 750         | 16013-16569/1-791     |                        |             |      |   |
| HNCT2-624           | B4b        | 136 183C 189 217 519                                   | 73 263 309+C 315+C 408A 499 750                 | 16013-16569/1-806     |                        |             |      |   |
| HNCT2-627           | B4b        | 136 183C 189 217 218 519                               | 73 249 263 309+C 315+C 499 750 827              | 16013-16569/1-869     |                        |             |      |   |
| HNCT2-628           | B4b        | 093 136 182C 183C 189 217 298 355 519                  | 73 150 152 263 315+C 357 499                    | 16013-16569/1-658     |                        |             |      |   |
| HNCT2-645           | B4b        | 086 136 183C 189 217 519                               | 73 146 207 263 309+C 315+C 408A 499 750 827     | 16013-16569/1-836     |                        |             |      |   |
| HN-CT20             | B4b'd'e    | 140 150 183C 189 217 234 249 519                       | 73 263 315+C 556T 750 827                       | 16010-16569/1-921     |                        |             |      |   |
| HN-CT713            | B4b'd'e    | 172 180 183C 189 217 519                               | 73 263 309+C 315+C 316 524+AC 750 827           | 16012-16569/1-841     |                        |             |      |   |
| HN-CT353            | B4b'd'e    | 176 183C 189 217 519                                   | 73 263 309+C 315+C 316 750 827                  | 16017-16569/1-921     |                        |             |      |   |
| HN-CT258            | B4b'd'e    | 182C 183C 189 217 242 362 519                          | 73 207 263 309+2C 315+C 750 827                 | 16055-16569/1-921     |                        |             |      |   |
| HN-CT223            | B4b'd'e    | 183C 189 217 234 519                                   | 73 263 309+C 315+C 750 827                      | 16040-16569/1-921     |                        |             |      |   |
| HN-CT570            | B4b'd'e    | 183C 189 217 519                                       | 73 214 263 309+2C 315+C 316 571 750 827         | 16013-16569/1-921     |                        |             |      |   |
| HN-CT596            | B4b'd'e    | 183C 189 217 519                                       | 73 214 263 309+2C 315+C 316 571 750 827         | 16013-16569/1-921     |                        |             |      |   |
| HN-CT271            | B4b'd'e    | 183C 189 217 519                                       | 73 263 309+2C 315+C 316 750 827                 | 16089-16569/1-921     |                        |             |      |   |
| HN-CT638            | B4b'd'e    | 051 183C 189 217 519                                   | 73 228 263 309+2C 315+C 316 569 750 827         | 16012-16569/1-921     |                        |             |      |   |
| HNCT2-417           | B4b'd'e    | 129 182C 183C 189 217 223 519                          | 73 146 150 185 189 196 263 315+C 513 750 827    | 16013-16569/1-836     |                        |             |      | 7917-8733=8197 8281-8289d 8404; 15040-15760=15326 15535 |
| HNCT2-474           | B4b'd'e    | 093h 182C 183C 185 189 217 223 259 261 271 519         | 73 146 189 196 263 309+C 315+C 513 750 827      | 16013-16569/1-836     |                        |             |      |   |
| HNCT2-435           | B4c        | 183C 189 217 519                                       | 73 152 263 309+2C 315+C 750                     | 16014-16569/1-908     |                        |             |      | 15040-15760=15287 15326 15346                           |
| HNCT2-660           | B4c        | 183C 189 217 519                                       | 73 150 263 309d 315+C 316 750 827               | 16013-16569/1-836     |                        |             |      | 15040-15760=15326 15346 15508                           |
| HN-CT297            | B4c        | 129 140 145 166 182C 183C 189 217 274 335 519          | 73 146 150 263 309+2C 315+C 709 750             | 16047-16569/1-921     |                        |             |      |   |
| HN-CT475            | B4c        | 129 140 166 182C 183C 189 217 335 390 519              | 73 150 235 263 309+2C 315+C 709 750             | 16013-16569/1-911     |                        |             |      |   |
| HN-CT490            | B4c        | 129 140 166 183C 189 217 274 335 519                   | 73 150 211 263 315+C 709 750                    | 16013-16569/1-921     |                        |             |      |   |
| HN-CT716            | B4c        | 129 140 166 183C 189 217 274 335 519                   | 73 150 263 315+C 524+AC 709 750                 | 16013-16569/1-921     |                        |             |      |   |
| HN-C147             | B4c        | 129 140 166 183C 189 217 274 519                       | 73 150 263 292 309+C 315+C 709 750              | 16017-16569/1-921     |                        |             |      |   |
| HN-CT224            | B4c        | 136 140 183C 189 217 249 274 291 335 519               | 73 150 263 309+C 315+C 709 750                  | 16015-16569/1-921     |                        |             |      |   |
| HN-CT480            | B4c        | 140 145 182C 183C 189 217 274 335 519                  | 73 146 150 263 315+C 709 750                    | 16017-16569/1-911     |                        |             |      |   |
| HN-CT71             | B4c        | 140 182C 183C 187 188 193+C 217 274 311 335 519        | 73 146 150 263 315+C 709 750                    | 16017-16569/1-921     |                        |             |      |   |
| HN-CT366            | B4c        | 140 182C 183C 189 217 274 305T 335 519                 | 73 150 195 263 309+2C 315+C 709 750             | 16058-16569/1-921     |                        |             |      |   |
| HN-CT316            | B4c        | 140 182C 183C 189 217 274 311 335 519                  | 73 146 150 263 309+C 315+C 709 750              | 16047-16569/1-921     |                        |             |      |   |
| HN-CT649            | B4c        | 140 182C 183C 189 217 274 311 335 519                  | 73 146 150 263 309+2C 315+C 709 750             | 16012-16569/1-921     |                        |             |      |   |
| HN-CT253            | B4c        | 140 182C 183C 189 217 274 335 519                      | 73 146 150 263 309+2C 315+C 709 750             | 16045-16569/1-921     |                        |             |      |   |
| HN-CT131            | B4c        | 140 183C 189 217 274 310 335 519                       | 73 150 263 309+C 315+C 709 750                  | 16041-16569/1-921     |                        |             |      |   |
| HN-CT63             | B4c        | 140 183C 189 217 274 335 519                           | 73 150 263 315+C 709 750                        | 16009-16569/1-921     |                        |             |      |   |
| HN-CT578            | B4c        | 183C 189 217 311 519                                   | 73 150 195 214 263 279 309+C 315+C 523-524d 750 | 16013-16569/1-921     |                        |             |      |   |
| HN-CT438            | B4c        | 183C 193+C 217 274 335 519                             | 73 150 263 309+C 315+C 709 750                  | 16033-16569/1-921 +   |                        |             |      |   |
| HN-CT581            | B4c        | 092 129 140 166 183C 189 217 274 292 335 519           | 73 150 207 263 309+C 315+C 709 750              | 16012-16569/1-911     |                        |             |      |   |
| HN-CT428            | B4c        | 092 183C 189 217 274 291 319 335 390 519               | 73 150 228 263 315+C 523-524d 709 750           | 16033-16569/1-761     |                        |             |      |   |
| HN-CT292            | B4c        | 093 140 183C 189 217 274 519                           | 73 150 263 309+C 315+C 420+C 513 515C 709 750   | 16074-16569/1-870     |                        |             |      |   |
| HNCT2-429           | B4c        | 129 140 166 183C 189 217 274 311 335 519               | 73 146 150 263 309+C 315+C 709 750              | 16013-16569/1-806     |                        |             |      |   |
| HNCT2-491           | B4c        | 129 140 166 183C 189 217 274 311 335 519               | 73 146 150 263 309+C 315+C 709 750              | 16013-16569/1-806     |                        |             |      |   |
| HNCT2-560           | B4c        | 140 182C 183C 189 217 274 311 335 519                  | 73 146 150 263 309+C 315+C 709 750              | 16013-16569/1-797     |                        |             |      |   |
| HNCT2-563           | B4c        | 140 182C 183C 189 217 274 311 335 497 519 527          | 73 146 150 152 182 263 309+2C 315+C 513 709 750 | 16013-16569/1-806     |                        |             |      |   |
| HNCT2-588           | B4c        | 140 183C 189 217 274 335 519                           | 73 150 228 263 315+C 709 750                    | 16013-16569/1-873     |                        |             |      |   |
| HNCT2-607           | B4c        | 140 182C 183C 189 217 274 335 519                      | 73 146 150 263 309+C 315+C 709 750              | 16013-16569/1-797     |                        |             |      |   |
| HNCT2-613           | B4c        | 140 182C 183C 189 217 274 311 335 519                  | 73 146 150 195 263 309+2C 315+C                 | 16013-16569/1-689     |                        |             |      |   |
| HNCT2-684           | B4c        | 129 140 183C 189 217 274 519                           | 73 150 263 309+C 315+C 709 750                  | 16013-16569/1-806     |                        |             |      |   |
| HN-CT196            | B4c        | 147 183C 184A 189 217 235 519                          | 73 263 309+C 315+C 523-524d 750                 | 16017-16569/1-754     |                        |             |      |   |
| HN-CT614            | B4c        | 147 183C 184A 189 217 235 519                          | 73 263 309+C 315+C 523-524d 750                 | 16013-16569/1-921     |                        |             |      |   |
| HN-CT492            | B4c        | 093 147 183C 184A 189 217 235 519                      | 73 263 309+C 315+C 523-524d 750                 | 16012-16569/1-921     |                        |             |      |   |
| HNCT2-459           | B4c        | 183C 184A 189 217 235 519                              | 73 263 309+C 315+C 523-524d 750                 | 16013-16569/1-783     |                        |             |      |   |
| HNCT2-485           | B4c        | 147 183C 184A 189 217 235 294 519 527                  | 73 263 309+C 315+C 523-524d 750                 | 16014-16569/1-872     |                        |             |      |   |
| HNCT2-562           | B4c        | 147 183C 184A 189 217 235 519                          | 73 263 309+C 315+C 523-524d 750                 | 16013-16569/1-806     |                        |             |      |   |
| HN-CT683            | B4g        | 103h 153 181C 182C 183C 189 213 217 261 292 362 519    | 73 263 315+C 523-524d 750                       | 16012-16569/1-921     |                        |             |      |   |
| HN-CT48             | B4g        | 181C 182C 183C 189 213 217 242 261 287 292 301 355 519 | 61A 62 73 263 309+2C 315+C 523-524d 709 750     | 16009-16569/1-921     |                        |             |      |   |
| HN-CT647            | B4g        | 181C 182C 183C 189 213 217 261 292 519                 | 73 146 152 263 309+C 315+C 523-524d 750         | 16013-16569/1-921     |                        |             |      |   |
| HN-CT254            | B4g        | 181C 182C 183C 189 213 217 261 292 519                 | 73 263 309+C 315+C 523-524d 750                 | 16013-16569/1-911     |                        |             |      |   |
| HNCT2-413           | B4g        | 181C 182C 183C 189 213 217 261 292 519                 | 73 263 309+C 315+C 523-524d 750                 | 16013-16569/1-806     |                        |             |      |   |
| HNCT2-421           | B4g        | 181C 182C 183C 189 213 217 261 292 519                 | 61A 62 73 263 309+2C 315+C 523-524d 750         | 16013-16569/1-908     |                        |             |      |   |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>                    | Region 2 <sup>b</sup>                                   | Coverage <sup>c</sup> | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|---|---|-----------------------|---------------------------------------|
|                     |            |   |   | 5176 A/G <sup>d</sup> |                                       |
| HN-CT398            | B5a        | 111G 129 140 183C 189 234 266G 519                | 73 89 93 95C 127 152 210 263 315+C 523-524d 709 750 849 | 16050-16569/1-921     |                                       |
| HN-CT445            | B5a        | 140 182C 183C 189 261 266A 519                    | 73 152 210 263 309+2C 315+C 523-524d 709 750            | 16033-16569/1-893     |                                       |
| HN-CT532            | B5a        | 140 182C 183C 189 261 266A 519                    | 73 152 210 263 309+2C 315+C 523-524dh                   | 16020-16569/1-670     |                                       |
| HN-CT431            | B5a        | 140 182C 183C 189 266A 519                        | 73 210 263 309+2C 315+C 523-524d 547 709 750            | 16024-16569/1-911     |                                       |
| HN-CT493            | B5a        | 140 183C 189 207 266A 519                         | 73 210 263 315+C 523-524d 709 750                       | 16013-16569/1-921     |                                       |
| HN-CT110            | B5a        | 140 183C 189 209 266A 519                         | 73 210 263 315+C 523-524d 709 750                       | 16018-16569/1-921     |                                       |
| HN-CT512            | B5a        | 140 183C 189 234 266A 325 519                     | 73 210 263 315+C 523-524d 709 750                       | 16047-16569/1-921     |                                       |
| HN-CT376            | B5a        | 140 183C 189 240 266A 519                         | 73 210 263 315+C 523-524d 593 709 750 827               | 16032-16569/1-921     |                                       |
| HN-CT567            | B5a        | 140 183C 189 258C 262+C 266A 519                  | 73 210 263 309+C 315+C 523-524d 709 750                 | 16019-16569/1-908     |                                       |
| HN-CT90             | B5a        | 140 183C 189 260 266A 519                         | 73 189 200 215 263 294 309+C 315+C 709 750              | 16082-16569/1-921     |                                       |
| HN-CT215            | B5a        | 140 183C 189 260 266G 519                         | 73 210 263 294 309+C 315+C 709 750                      | 16012-16569/1-921     |                                       |
| HN-CT294            | B5a        | 140 183C 189 266A 278 519                         | 73 210 263 309+C 315+C 523-524d 709 750                 | 16047-16569/1-880     |                                       |
| HN-CT350            | B5a        | 140 183C 189 266A 519                             | 73 210 263 309+2C 315+C 523-524d 593 709 750            | 16013-16569/1-921     |                                       |
| HN-CT477            | B5a        | 140 183C 189 266A 519                             | 73 210 263 309+2C 315+C 523-524d 593 709 750            | 16018-16569/1-911     |                                       |
| HN-CT496            | B5a        | 140 183C 189 266A 519                             | 73 210 263 309+C 315+C 523-524d 593 650 709 750         | 16009-16569/1-921     |                                       |
| HN-CT4              | B5a        | 140 183C 189 266A 519                             | 73 210 263 315+C 523-524d 593 709 750                   | 16042-16569/1-921     |                                       |
| HN-CT25             | B5a        | 140 183C 189 266A 519                             | 73 210 263 315+C 523-524d 709 750                       | 16013-16569/1-921     |                                       |
| HN-CT471            | B5a        | 140 187 189 256 266G 355 519                      | 73 93 150 210 263 309+C 315+C 523-524d 709 750          | 16013-16569/1-911     |                                       |
| HN-CT144            | B5a        | 140 189 266A 519                                  | 73 146 210 263 309+C 315+C 523-524d 709 750             | 16019-16569/1-921     |                                       |
| HN-CT363            | B5a        | 189 266G 291 519                                  | 73 210 263 315+C 523-524d 709 750                       | 16033-16569/1-921     |                                       |
| HN-CT349            | B5a        | 066 140 183C 189 266G 274 291 519                 | 73 210 263 309+C 315+C 523-524d 709 750                 | 16013-16569/1-921     |                                       |
| HN-CT301            | B5a        | 079 140 183C 189 223 266A 291 456 519             | 73 152 210 263 309+C 315+C 523-524d 709 750             | 16009-16569/1-906     |                                       |
| HN-CT406            | B5a        | 092 140 182C 183C 189 266A 519                    | 73 210 263 309+2C 315+C 523-524d 709 750                | 16013-16569/1-911     |                                       |
| HN-CT85             | B5a        | 093 140 183C 189 262 266A 519                     | 64 73 210 263 315+C 523-524d 593 709 750                | 16082-16569/1-921     |                                       |
| HNCT2-402           | B5a        | 140 183C 189 266A 519                             | 73 210 235 263 309+C 315+C 523-524d 709 750             | 16013-16569/1-806     |                                       |
| HNCT2-442           | B5a        | 140 182C 183C 189 266A 519                        | 73 210 263 315+C 523-524d 709 750                       | 16014-16569/1-835     |                                       |
| HNCT2-486           | B5a        | 140 183C 189 260 266A 519                         | 73 189 210 236 263 294 309+C 315+C 523-524d             | 16013-16569/1-652     |                                       |
| HNCT2-489           | B5a        | 140 182C 183C 189 266A 519                        | 73 210 263 315+C 523-524d 593 709 750                   | 16013-16569/1-836     |                                       |
| HNCT2-555           | B5a        | 140 183C 189 266A                                 | 73 210 263 309+C 315+C 523-524d 709 750                 | 16013-16569/1-826     |                                       |
| HNCT2-586           | B5a        | 079 140 183C 189 223 266A 456 519                 | 73 210 263 309+2C 315+C 523-524d 709 750                | 16013-16569/1-851     |                                       |
| HNCT2-606           | B5a        | 140 187 189 256 266G 519                          | 73 93 210 263 315+C 523-524d 709 750                    | 16013-16569/1-836     |                                       |
| HNCT2-616           | B5a        | 140 182C 183C 189 266A 357 519                    | 73 146 210 263 309+C 315+C 523-524d 709 750             | 16013-16569/1-806     |                                       |
| HNCT2-620           | B5a        | 140 182C 183C 189 266A 519                        | 73 152 210 263 315+C 523-524d 709 750                   | 16013-16569/1-865     |                                       |
| HN-CT192            | B5b        | 111 129 140 182C 183C 189 234 243 261 304 463 519 | 73 103 131 204 207 263 309+2C 315+C 523-524d 709 750    | 16071-16569/1-921     |                                       |
| HN-CT32             | B5b        | 111 140 162 169+C 182C 183C 189 234 243 463 519   | 73 94 103 131 263 309+2C 315+C 481 523-524d 709 750     | 16013-16569/1-921     |                                       |
| HN-CT558            | B5b        | 111 140 182C 183C 189 234 243 463 519             | 73 103 131 204 263 309+C 315+C 523-524d                 | 16013-16569/1-670     |                                       |
| HN-CT585            | B5b        | 111 140 182C 183C 189 234 243 463 519             | 73 103 131 204 263 309+C 315+C 523-524d 709 750         | 16012-16569/1-921     |                                       |
| HN-CT49             | B5b        | 111 140 182C 183C 189 234 243 519                 | 73 103 131 143 204 263 309+2C 315+C 523-524d 709 750    | 16009-16569/1-921     |                                       |
| HN-CT467            | B5b        | 111 140 183C 189 234 243 463 519                  | 73 103 131 183C 204 263 309+C 315+C 523-524d 709 750    | 16027-16569/1-878     |                                       |
| HN-CT405            | B5b        | 111 140 183C 189 234 243 463 519                  | 73 103 263 315+C 481 523-524d 709 750                   | 16010-16569/1-911     |                                       |
| HN-CT697            | B5b        | 140 182C 183C 189 243 519                         | 73 103 195 204 263 315+C 523-524d 709 750               | 16012-16569/1-921     |                                       |
| HN-CT16             | B5b        | 140 183C 189 201 234 243                          | 73 203 204 263 309+2C 315+C 523-524d 709 750            | 16060-16569/1-921     |                                       |
| HN-CT273            | B5b        | 140 183C 189 243 263 519                          | 73 103 204 263 309+C 315+C 523-524d 709 750             | 16039-16569/1-921     |                                       |
| HN-CT421            | B5b        | 140 183C 189 243 291 327 362 519                  | 73 103 204 263 309+C 315+C 537 709 750                  | 16061-16569/1-914     |                                       |
| HN-CT355            | B5b        | 140 183C 189 243 360 519                          | 73 103 263 309+2C 315+C 523-524d 709 750                | 16032-16569/1-921     |                                       |
| HN-CT323            | B5b        | 140 183C 189 243 519                              | 73 103 143 204 263 309+C 315+C 523-524d 709 750         | 16013-16569/1-911     |                                       |
| HN-CT484            | B5b        | 140 183C 189 243 519                              | 73 103 189 203 204 263 309+C 315+C 523-524d 709 750     | 16012-16569/1-921     |                                       |
| HN-CT382            | B5b        | 051 111 140 183C 189 234 243 463 519              | 73 103 131 204 263 315+C 523-524d 709 750               | 16050-16569/1-921     |                                       |
| HN-CT225            | B5b        | 093 140 183C 189 243 274 519                      | 73 103 146 152 189 204 263 315+C 523-524d 709 750       | 16021-16569/1-921     |                                       |
| HNCT2-457           | B5b        | 140 182C 183C 189 243 292 311 519                 | 73 103 204 263 309+C 315+C 523-524d 709 750             | 16013-16569/1-806     |                                       |
| HNCT2-466           | B5b        | 140 183C 189 234 243 346C                         | 73 103 131 246 263 315+C 523-524d 709 750               | 16013-16569/1-826     |                                       |
| HNCT2-467           | B5b        | 140 183C 189 234 243 346C                         | 73 103 131 246H 263 315+C 523-524d 709 750              | 16013-16569/1-851     |                                       |
| HNCT2-469           | B5b        | 140 183C 189 243 519                              | 73 103 131 263 309+C 315+C 523-524d 709 750             | 16013-16569/1-792     |                                       |
| HNCT2-651           | B5b        | 140 182C 183C 189 243 519                         | 73 103 263 309+C 315+C 523-524d 709 750                 | 16013-16569/1-806     |                                       |
| HN-CT173            | C          | 124 171 223 298 327 344 357 519                   | 47 73 207 249d 263 309+C 315+C 489 750                  | 16012-16569/1-911     |                                       |
| HN-CT348            | C          | 129 223 298 327 519                               | 73 146 249d 263 309+2C 315+C 489 750                    | 16012-16569/1-921     |                                       |
| HN-CT96             | C          | 129 223 298 327 519                               | 73 151 195 249d 263 309+C 315+C 489 750                 | 16024-16569/1-921     |                                       |
| HN-CT574            | C          | 129 223 298 327 519                               | 73 153h 195 249d 263 309+2C 315+C 489 750               | 16013-16569/1-921     |                                       |
| HN-CT185            | C          | 145 223 298 327 519                               | 73 249d 263 309+2C 315+C 489 750                        | 16012-16569/1-921     |                                       |
| HN-CT420            | C          | 171 189 223 298 327 344 357 519                   | 73 207 249d 263 309+C 315+C 489 750                     | 16017-16569/1-921     |                                       |
| HN-CT377            | C          | 183C 189 223 298 327 519 527                      | 73 249d 263 309+2C 315+C 489 750                        | 16017-16569/1-911     |                                       |
| HN-CT689            | C          | 189 223 298 319 327 519                           | 73 249d 263 309+2C 315+C 489                            | 16012-16569/1-670     |                                       |
| HN-CT159            | C          | 189 223 298 327 519                               | 44+C 73 249d 263 315+C 489 750                          | 16013-16569/1-921     |                                       |
| HN-CT667            | C          | 223 231 242 298 327 519                           | 73 146 249d 263 315+C 489 750                           | 16012-16569/1-921     |                                       |
| HN-CT444            | C          | 223 231 242 298 327 519                           | 73 146 249d 263 315+C 489 750                           | 16033-16569/1-814     |                                       |
| HN-CT233            | C          | 223 270 298 327 519                               | 73 146 249d 263 315+C 489 750                           | 16012-16569/1-921     |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup> | Region 2 <sup>b</sup>                         | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281_8-289d | 8718 | Additional polymorphisms <sup>e</sup>                   |
|---------------------|------------|--------------------------------|---|-----------------------|------------------------|-------------|------|---|
| HN-CT375            | C          | 223 288 298 300 519            | 73 249d 263 309+C 315+C 489 595+C 750         | 16055-16569/1-899     |                        |             |      |   |
| HN-CT111            | C          | 223 290 298 327 519            | 73 146 249d 263 309+C 315+C 489 750           | 16013-16569/1-921     |                        |             |      |   |
| HN-CT650            | C          | 223 298 327 390 519            | 73 146 249d 263 309+C 315+C 489 750           | 16010-16569/1-921     |                        |             |      |   |
| HN-CT66             | C          | 223 298 327 519                | 73 146 151 249d 263 489 750                   | 16082-16569/1-921     |                        |             |      |   |
| HN-CT424            | C          | 223 298 327 519                | 73 146 249d 263 309+C 315+C 489 750           | 16043-16569/1-921     |                        |             |      |   |
| HN-CT508            | C          | 223 298 327 519                | 73 146 249d 263 309+C 315+C 489 750           | 16082-16569/1-921     |                        |             |      |   |
| HN-CT615            | C          | 223 298 327 519                | 73 146 249d 263 309+C 315+C 489 750           | 16012-16569/1-921     |                        |             |      |   |
| HN-CT81             | C          | 223 298 327 519                | 73 146 249d 263 315+C 489 750                 | 16082-16569/1-921     |                        |             |      |   |
| HN-CT207            | C          | 223 298 327 519                | 73 249d 263 315+C 489 593 750                 | 16079-16569/1-921     |                        |             |      |   |
| HN-CT239            | C          | 051 209 223 298 319 327 519    | 73 249d 263 315+C 489 750                     | 16050-16569/1-921     |                        |             |      |   |
| HN-CT106            | C          | 051 223 298 325 327 519        | 73 249d 263 309+C 315+C 489 750               | 16017-16569/1-921     |                        |             |      |   |
| HN-CT138            | C          | 051 223 298 325 327 519        | 73 249d 263 309+C 315+C 489 750               | 16043-16569/1-921     |                        |             |      |   |
| HN-CT362            | C          | 093 129 223 298 327 519        | 73 195 228T 249d 263 309+C 315+C 489 750      | 16053-16569/1-921     |                        |             |      |   |
| HN-CT519            | C          | 093 189 223 298 327 519        | 73 249d 263 309+C 315+C 489 750               | 16013-16569/1-921     |                        |             |      |   |
| HN-CT343            | C          | 093 223 266 298 327 422 519    | 73 249d 263 315+C 489 750                     | 16055-16569/1-921     |                        |             |      |   |
| HN-CT59             | C          | 093 223 266 298 327 519        | 73 249d 263 315+C 489 750                     | 16033-16569/1-921     |                        |             |      |   |
| HN-CT128            | C          | 093 223 266 298 327 519        | 73 249d 263 315+C 489 750                     | 16080-16569/1-921     |                        |             |      |   |
| HNCT2-423           | C          | 175 223 298 327 519            | 73 146 249d 263 309+C 315+C 489 750           | 16014-16569/1-806     |                        |             |      |   |
| HNCT2-427           | C          | 189 223 298 319 327 519        | 73 249d 263 309+C 315+C 489 750               | 16013-16569/1-806     |                        |             |      |   |
| HNCT2-445           | C          | 067 145 223 294 298 327 519    | 73 249d 263 309+C 315+C 489                   | 16014-16569/1-652     |                        |             |      |   |
| HNCT2-464           | C          | 093 223 266 298 327 519        | 73 249d 263 315+C 489 750                     | 16013-16569/1-836     |                        |             |      |   |
| HNCT2-506           | C          | 051 189 223 298 327 362 519    | 73 188 204 249d 263 315+C 489 750             | 16012-16569/1-836     |                        |             |      |   |
| HNCT2-511           | C          | 223 298 327 519                | 73 249d 263 309+C 315+C 489 750               | 16014-16569/1-908     |                        |             |      |   |
| HNCT2-526           | C          | 148 223 274 288 298 327 519    | 73 249d 263 315+C 489 573+2C 595+C 750        | 16014-16569/1-806     |                        |             |      |   |
| HNCT2-557           | C          | 223 298 327 519                | 73 249d 263 315+C 489 750                     | 16013-16569/1-826     |                        |             |      |   |
| HNCT2-564           | C          | 145 223 298 327 519            | 73 249d 263 315+C 489 750                     | 16013-16569/1-770     |                        |             |      |   |
| HNCT2-593           | C          | 145 223 298 327 519            | 73 249d 263 309+C 315+C 489 750               | 16013-16569/1-806     |                        |             |      |   |
| HNCT2-633           | C          | 223 230 270 298 327 519        | 73 146 249d 263 315+C 489 750                 | 16013-16569/1-873     |                        |             |      |   |
| HNCT2-643           | C          | 145 223 298 327 519            | 73 249d 263 309+C 315+C 489 750               | 16013-16569/1-806     |                        |             |      |   |
| HNCT2-658           | C          | 213 223 311 327 519            | 73 249d 263 309+C 315+C 489 709 750           | 16013-16569/1-836     |                        |             |      | 14055-14570=14318; 15010-15780=15043 15301 15326 15487T |
| HN-CT242            | CZ         | 129 223 298                    | 73 200 249d 263 315+C 489 523-524d 750        | 16043-16569/1-921     |                        |             |      |   |
| HN-CT41             | D4         | 111 129 223 362                | 73 200 263 309+C 315+C 489 750                | 16071-16569/1-921     | -                      |             |      |   |
| HN-CT369            | D4         | 111 223 311 362 519            | 73 263 309+C 315+C 489 523-524d 750           | 16071-16569/1-921     | -                      |             |      |   |
| HN-CT214            | D4         | 111 223 362 519                | 73 263 315+C 489 523-524d 750                 | 16012-16569/1-921     | -                      |             |      |   |
| HN-CT112            | D4         | 114 167 223 362                | 73 263 309+C 315+C 489 523-524d 750           | 16012-16569/1-921     | -                      |             |      |   |
| HN-CT211            | D4         | 114A 182 223 311 362           | 73 152 263 315+C 489 750                      | 16012-16569/1-921     | -                      |             |      |   |
| HN-CT464            | D4         | 114A 223 362                   | 73 152 263 309+C 315+C 489 750                | 16032-16569/1-751     | -                      |             |      |   |
| HN-CT156            | D4         | 129 174 223 362                | 73 263 309+C 315+C 489 523-524d 750           | 16078-16569/1-921     | -                      |             |      |   |
| HN-CT47             | D4         | 136 174 223 274 362            | 73 217 263 309+C 315+C 489 523-524d 750       | 16014-16569/1-921     | -                      |             |      |   |
| HN-CT387            | D4         | 140 223 290 362 519            | 73 152 263 298 315+C 489 750                  | 16087-16569/1-819     | -                      |             |      |   |
| HN-CT515            | D4         | 172 223 292 362                | 73 263 309+C 315+C 489 629 750                | 16043-16569/1-921     | -                      |             |      |   |
| HN-CT418            | D4         | 174 179 223 343 362            | 73 131 263 315+C 489 750                      | 16043-16569/1-921     | -                      |             |      |   |
| HN-CT289            | D4         | 174 223 362                    | 73 263 309+C 315+C 489 523-524d 750           | 16009-16569/1-921     | -                      |             |      |   |
| HN-CT479            | D4         | 174 223 362                    | 73 263 309+C 315+C 489 750                    | 16020-16569/1-921     | -                      |             |      |   |
| HN-CT538            | D4         | 178G 188+C 223 362             | 73 184 199 204 263 315+C 489 495 523-524d 750 | 16051-16569/1-921     | -                      |             |      |   |
| HN-CT618            | D4         | 184 223 311 362                | 73 152 263 315+C 489 750                      | 16012-16569/1-921     | -                      |             |      |   |
| HN-CT342            | D4         | 184 223 311 362                | 73 247T 263 309+C 315+C 489 750               | 16012-16569/1-911     | -                      |             |      |   |
| HN-CT505            | D4         | 184 223 311 362                | 73 263 315+C 489 750                          | 16043-16569/1-921     | -                      |             |      |   |
| HN-CT152            | D4         | 185 223 311 362 526            | 73 263 298 309+C 315+C 489 523-524d 750       | 16051-16569/1-921     | -                      |             |      |   |
| HN-CT608            | D4         | 192 222 316 362                | 41 73 184 195 204 263 309+C 315+C 489 507 750 | 16013-16569/1-921     | -                      |             |      |   |
| HN-CT88             | D4         | 193 223 362                    | 73 152 195 263 309+C 315+C 489 750            | 16082-16569/1-921     | -                      |             |      |   |
| HN-CT27             | D4         | 201 223 362                    | 73 152 165 263 315+C 489 750                  | 16055-16569/1-921     | -                      |             |      |   |
| HN-CT655            | D4         | 223 249 362                    | 73 146H 263 309+C 315+C 489 750               | 16013-16569/1-921     | -                      |             |      |   |
| HN-CT456            | D4         | 223 249 362                    | 73 150 263 315+C 489 750                      | 16009-16569/1-818     | -                      |             |      |   |
| HN-CT19             | D4         | 223 249 362                    | 73 263 309+C 315+C 489 750                    | 16013-16569/1-921     | -                      |             |      |   |
| HN-CT537            | D4         | 223 249 362                    | 73 263 309+C 315+C 489 750                    | 16013-16569/1-921     | -                      |             |      |   |
| HN-CT103            | D4         | 223 249 362                    | 73 263 315+C 489 750                          | 16012-16569/1-921     | -                      |             |      |   |
| HN-CT404            | D4         | 223 256 311 362 519            | 73 200 263 315+C 489 750                      | 16013-16569/1-911     | -                      |             |      |   |
| HN-CT526            | D4         | 223 286 362                    | 73 263 315+C 489 750                          | 16042-16569/1-921     | -                      |             |      |   |
| HN-CT602            | D4         | 223 286 362                    | 73 263 315+C 489 750                          | 16012-16569/1-921     | -                      |             |      |   |
| HN-CT652            | D4         | 223 288 362 519                | 73 195 263 315+C 489 523-524d 750             | 16013-16569/1-921     | -                      |             |      |   |
| HN-CT102            | D4         | 223 311 362                    | 73 152 263 309+C 315+C 489 709 750            | 16015-16569/1-921     | -                      |             |      |   |
| HN-CT315            | D4         | 223 311 362 519                | 73 152 263 309+C 315+C 489 750                | 16043-16569/1-921     | -                      |             |      |   |
| HN-CT120            | D4         | 223 359 362                    | 73 263 309+C 315+C 489 750                    | 16023-16569/1-921     | -                      |             |      |   |
| HN-CT630            | D4         | 223 362                        | 73 152 195 263 315+C 489 750                  | 16039-16569/1-921     | -                      |             |      |   |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup> | Region 2 <sup>b</sup>                        | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281-8-289d | 8718 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|--------------------------------|--|-----------------------|------------------------|-------------|------|---------------------------------------|
| HN-CT642            | D4         | 223 362                        | 73 247 263 309+C 315+C 489 523-524d 750      | 16012-16569/1-834     | -                      |             |      |                                       |
| HN-CT624            | D4         | 223 362                        | 73 263 315+C 489 750                         | 16031-16569/1-921     | -                      |             |      |                                       |
| HN-CT374            | D4         | 223 362                        | 73 263 315+C 489 750                         | 16043-16569/1-921     | -                      |             |      |                                       |
| HN-CT79             | D4         | 223 362                        | 73 263 309+C 315+C 489 750                   | 16032-16569/1-921     | -                      |             |      |                                       |
| HN-CT628            | D4         | 223 362 519                    | 73 263 298 315+C 489 750                     | 16013-16569/1-752     | -                      |             |      |                                       |
| HN-CT368            | D4         | 223 362 519                    | 73 263 309+C 315+C 489 523-524d 750          | 16072-16569/1-921     | -                      |             |      |                                       |
| HN-CT499            | D4         | 223 362 519                    | 73 263 315+C 489 523-524d 750                | 16048-16569/1-921     | -                      |             |      |                                       |
| HN-CT719            | D4         | 223 362 519                    | 73 263 315+C 489 750                         | 16017-16569/1-921     | -                      |             |      |                                       |
| HN-CT161            | D4         | 223 362 519                    | 73 263 315+C 489 750                         | 16018-16569/1-921     | -                      |             |      |                                       |
| HN-CT481            | D4         | 070 223 362                    | 73 152 263 315+C 489 750                     | 16012-16569/1-921     | -                      |             |      |                                       |
| HN-CT298            | D4         | 092 223 362                    | 73 263 309+C 315+C 489 750                   | 16043-16569/1-820     | -                      |             |      |                                       |
| HN-CT640            | D4         | 092 223 362 519                | 73 200 263 315+C 489 523-524d 629 750        | 16013-16569/1-911     | -                      |             |      |                                       |
| HN-CT58             | D4         | 095 223 362                    | 73 195 263 315+C 489 750                     | 16023-16569/1-833     | -                      |             |      |                                       |
| HNCT2-441           | D4         | 093 223 249 362 519            | 73 195 263 309+C 315-C 374C 489 573d 750     | 16014-16569/1-806     | -                      |             |      |                                       |
| HNCT2-446           | D4         | 223 362 519                    | 73 194 263 315+C 489 523-524d 750            | 16014-16569/1-836     | -                      |             |      |                                       |
| HNCT2-452           | D4         | 169 223 266 274 362            | 73 263 298 309+C 315+C 489 750               | 16013-16569/1-783     | -                      |             |      |                                       |
| HNCT2-453           | D4         | 086 189 223 362                | 73 227 263 315+C 489 750                     | 16013-16569/1-836     | -                      |             |      | 2850-3565=3010                        |
| HNCT2-462           | D4         | 223 362 519                    | 55+T 64 195 263 309+C 315+C 489 750          | 16013-16569/1-867     | -                      |             |      |                                       |
| HNCT2-468           | D4         | 093 189 223 362 519            | 73 263 315+C 489 523-524d 750                | 16013-16569/1-836     | -                      |             |      | 2850-3565=3010                        |
| HNCT2-478           | D4         | 129 183C 189 223 362 519       | 73 150 152 263 309+C 315-C 489 750           | 16013-16569/1-806     | -                      |             |      | 2850-3565=3010                        |
| HNCT2-481           | D4         | 174 189 223 311 362            | 73 152 263 315+C 489 750                     | 16013-16569/1-806     | -                      |             |      | 1180-1930=1438; 2850-3053=3010        |
| HNCT2-499           | D4         | 223 319 362 399                | 73 263 309+C 315-C 489 573+2C 750            | 16014-16569/1-806     | -                      |             |      |                                       |
| HNCT2-504           | D4         | 223 362 519                    | 73 263 309+C 315+C 489 523-524d 648 750      | 16013-16569/1-826     | -                      |             |      |                                       |
| HNCT2-509           | D4         | 223 316 362                    | 73 183 263 309+C 315+C 489 750               | 16013-16569/1-829     | -                      |             |      | 2850-3565=3010                        |
| HNCT2-514           | D4         | 092 223 362                    | 73 94 263 309+C 315+C 478 489 517 750        | 16013-16569/1-873     | -                      |             |      |                                       |
| HNCT2-517           | D4         | 129 223 362 390                | 73 151 152 263 309+C 315-C 489 750           | 16013-16569/1-873     | -                      |             |      |                                       |
| HNCT2-524           | D4         | 129 223 362 390                | 73 151 152 263 309+C 315-C 489 750           | 16014-16569/1-806     | -                      |             |      |                                       |
| HNCT2-531           | D4         | 223 274 362                    | 73 263 298 309+C 315-C 489 546 750           | 16013-16569/1-806     | -                      |             |      |                                       |
| HNCT2-534           | D4         | 172 223 362 526T               | 73 150 263 315+C 489 750                     | 16013-16569/1-783     | -                      |             |      |                                       |
| HNCT2-535           | D4         | 223 294 362                    | 65A 73 195 237 263 315+C 489 501 750         | 16013-16569/1-836     | -                      |             |      |                                       |
| HNCT2-536           | D4         | 174 223 311 362                | 73 152 263 309+C 315-C 489 750               | 16013-16569/1-806     | -                      |             |      |                                       |
| HNCT2-537           | D4         | 184 223 311 362                | 73 263 284 309+C 315+C 338 489 750           | 16013-16569/1-836     | -                      |             |      |                                       |
| HNCT2-540           | D4         | 174 223 311 362                | 73 152 263 309+C 315-C 489 750               | 16013-16569/1-806     | -                      |             |      |                                       |
| HNCT2-550           | D4         | 126 201 223 274 362            | 73 152 263 309+C 315-C 489 750               | 16013-16569/1-826     | -                      |             |      |                                       |
| HNCT2-553           | D4         | 184 223 311 362 525            | 73 263 315+C 489 750                         | 16013-16569/1-836     | -                      |             |      |                                       |
| HNCT2-556           | D4         | 147 223 316 362                | 73 183 263 315+C 489 750                     | 16013-16569/1-836     | -                      |             |      | 2850-3565=3010                        |
| HNCT2-558           | D4         | 223 274 311 362                | 73 263 298 309+C 315-C 489 750               | 16013-16569/1-836     | -                      |             |      |                                       |
| HNCT2-571           | D4         | 214 223 362 519                | 73 263 298 315+C 489 523-524d 573+4C         | 16013-16569/1-573     | -                      |             |      |                                       |
| HNCT2-576           | D4         | 129 176 223 362                | 73 94 194 263 309+C 315-C 489 750            | 16013-16569/1-806     | -                      |             |      |                                       |
| HNCT2-582           | D4         | 223 274 362                    | 73 185 263 298 309+C 315+C 489 523-524d 750  | 16013-16569/1-845     | -                      |             |      |                                       |
| HNCT2-589           | D4         | 092 223 362                    | 73 94 263 309+C 315+C 489 750                | 16013-16569/1-806     | -                      |             |      |                                       |
| HNCT2-590           | D4         | 093 129 223 249 519            | 73 152 263 315+C 489 750                     | 16013-16569/1-836     | -                      |             |      |                                       |
| HNCT2-596           | D4         | 223 316 362                    | 73 183 263 315+C 489 750                     | 16013-16569/1-836     | -                      |             |      | 2850-3565=3010                        |
| HNCT2-609           | D4         | 172 362 519                    | 73 194 263 315+C 489 523-524d 750            | 16013-16569/1-840     | -                      |             |      |                                       |
| HNCT2-634           | D4         | 158 223 284 287 319            | 73 152 263 315+C 489 523-524d 750            | 16013-16569/1-836     | -                      |             |      |                                       |
| HNCT2-640           | D4         | 223 278 316 362                | 73 184 263 309+C 315-C 489 750               | 16013-16569/1-836     | -                      |             |      |                                       |
| HNCT2-644           | D4         | 129 189 223 362                | 73 150 152 263 309+2C 315+C 489 750          | 16013-16569/1-873     | -                      |             |      | 2850-3565=3010                        |
| HNCT2-646           | D4         | 223 362                        | 73 94 200 263 309+C 315+C 489 750            | 16013-16569/1-825     | -                      |             |      |                                       |
| HNCT2-649           | D4         | 223 335 362                    | 73 150A 263 309+C 315+C 489 523-524d 750 789 | 16013-16569/1-806     | -                      |             |      |                                       |
| HNCT2-672           | D4         | 223 301 362 519                | 73 152 263 309+C 315-C 489 750               | 16013-16569/1-873     | -                      |             |      |                                       |
| HN-CT403            | D4         | 129 168 223 362                | 73 152 263 309+C 315-C 489 750               | 16013-16569/1-911     | -                      |             |      |                                       |
| HN-CT547            | D4         | 129 223 263 362                | 73 152 263 315+C 489 750                     | 16046-16569/1-874     | -                      |             |      |                                       |
| HN-CT684            | D4         | 129 223 263 362 519            | 73 152 263 309+2C 315+C 489 507 750          | 16012-16569/1-852     | -                      |             |      |                                       |
| HN-CT52             | D4         | 129 223 263 362 519            | 73 152 263 309+C 315+C 489 507 750           | 16017-16569/1-921     | -                      |             |      |                                       |
| HN-CT42             | D4         | 129 223 263 362 519            | 73 152 263 315+C 385 489 515 750             | 16018-16569/1-921     | -                      |             |      |                                       |
| HN-CT634            | D4         | 129 223 270 362 519            | 73 146 152 263 309+C 315+C 489 523-524d 750  | 16013-16569/1-921     | -                      |             |      |                                       |
| HN-CT284            | D4         | 129 223 286 362 519            | 73 152 263 309+C 315-C 489 750               | 16012-16569/1-895     | -                      |             |      |                                       |
| HN-CT80             | D4         | 129 223 297 362 519            | 73 152 217 263 309+C 315+C 489 750           | 16015-16569/1-921     | -                      |             |      |                                       |
| HN-CT612            | D4         | 129 223 362                    | 73 152 263 309+C 315+C 489 750               | 16019-16569/1-921     | -                      |             |      |                                       |
| HN-CT606            | D4         | 129 223 362 519                | 73 152 217 263 309+C 315+C 489 750           | 16012-16569/1-921     | -                      |             |      |                                       |
| HN-CT372            | D4         | 129 223 362 519                | 73 152 263 315+C 489 750                     | 16054-16569/1-921     | -                      |             |      |                                       |
| HN-CT489            | D4         | 129 290A 362 465 474           | 73 152 263 309+2C 315+C 489 750              | 16071-16569/1-921     | -                      |             |      |                                       |
| HN-CT541            | D4         | 129 223 249 362                | 73 152 263 309+2C 315+C 489 750              | 16013-16569/1-921     | -                      |             |      |                                       |
| HN-CT24             | D4         | 223 249 362                    | 73 152 263 309+C 315+C 489 750               | 16014-16569/1-911     | -                      |             |      |                                       |
| HN-CT513            | D4         | 093 129 223 249 362            | 73 152 263 315+C 489 750                     | 16013-16569/1-921     | -                      |             |      |                                       |
| HN-CT202            | D4         | 093 129 192 223 249 362        | 73 152 263 309+C 315+C 489 750               | 16012-16569/1-921     | -                      |             |      |                                       |
| HN-CT319            | D4         | 093 129 192 223 249 362        | 73 152 263 309+C 315+C 489 750               | 16043-16569/1-921     | -                      |             |      |                                       |

| Sample <sup>a</sup> | Haplogroup      | Region 1 (16000+) <sup>b</sup>                    | Region 2 <sup>b</sup>                                | Coverage <sup>c</sup> | 5176 A/Iu <sup>d</sup> | 8281-8-289d | 8718 | Additional polymorphisms <sup>e</sup> |
|---------------------|-----------------|---|--|-----------------------|------------------------|-------------|------|---------------------------------------|
| HN-CT276            | D4              | 093 129 223 249 362                               | 73 152 228T 263 309+2C 315+C 489 750                 | 16047-16569/1-902     |                        |             |      |                                       |
| HN-CT643            | D4              | 093 129 223 249 362                               | 73 152 228T 263 309+C 315+C 489 750                  | 16012-16569/1-911     |                        |             |      |                                       |
| HN-CT661            | D4              | 093 129 223 249 362                               | 73 152 228T 263 309+C 315+C 489 750                  | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT367            | D4              | 093 129 223 249 362                               | 73 152 263 309+2C 315+C 489 750                      | 16018-16569/1-921     |                        |             |      |                                       |
| HN-CT263            | D4              | 093 129 223 263 362 519                           | 73 152 263 315+C 489 750                             | 16047-16569/1-921     | -                      |             |      |                                       |
| HN-CT706            | D4              | 129 223 293 319 362                               | 73 146 207 263 309+C 315+C 489 523-524d 750          | 16013-16569/1-921     | -                      |             |      |                                       |
| HN-CT710            | D4              | 129 223 293 319 362                               | 73 146 263 315+C 489 523-524d 750                    | 16013-16569/1-921     | -                      |             |      |                                       |
| HN-CT296            | D4              | 129 223 319 356 362                               | 64h 73 263 309+C 315+C 489 523-524d 750              | 16012-16569/1-911     | -                      |             |      |                                       |
| HN-CT415            | D4              | 223 274 284 287 319                               | 73 263 315+C 489 523-524d 750                        | 16009-16569/1-911     | -                      |             |      |                                       |
| HN-CT384            | D4              | 223 303 311 319 362                               | 73 263 309+2C 315+C 489 523-524d 750                 | 16032-16569/1-921     | -                      |             |      |                                       |
| HN-CT8              | D4              | 223 303 311 319 362                               | 73 263 309+C 315+C 489 523-524d 750                  | 16072-16569/1-921     | -                      |             |      |                                       |
| HN-CT100            | D4              | 223 319 326 362 519                               | 73 263 315+C 489 750                                 | 16017-16569/1-921     | -                      |             |      |                                       |
| HN-CT95             | D4              | 223 287 319 362 390 519                           | 73 263 309+C 315+C 431 489 523-524d 750              | 16082-16569/1-921     | -                      |             |      |                                       |
| HN-CT327            | D4              | 093 223 287 319 362 380                           | 73 263 309+C 315+C 431 489 523-524d 750              | 16078-16569/1-921     | -                      |             |      |                                       |
| HN-CT226            | D4              | 172 223 259 362 519                               | 73 194 263 279 315+C 489 523-524d 750                | 16009-16569/1-921     | -                      |             |      |                                       |
| HN-CT255            | D4              | 223 224 291 362 519                               | 73 152 194 263 309+C 315+C 489 523-524d 750          | 16043-16569/1-921     | -                      |             |      |                                       |
| HN-CT413            | D4              | 223 293 362 519                                   | 73 194 205 263 315+C 489 523-524d 750                | 16023-16569/1-921     | -                      |             |      |                                       |
| HN-CT5              | D4              | 223 362 519                                       | 73 150 194 263 315+C 489 523-524d 750                | 16032-16569/1-815     | -                      |             |      |                                       |
| HN-CT338            | D4              | 223 362 519                                       | 73 194 204 263 309+C 315+C 489 523-524d 750          | 16013-16569/1-911     | -                      |             |      |                                       |
| HN-CT213            | D4              | 223 362 519                                       | 73 194 263 309+2C 315+C 489 523-524d 750             | 16012-16569/1-819     | -                      |             |      |                                       |
| HN-CT142            | D4              | 223 362 519                                       | 73 194 263 315+C 489 523-524d 750                    | 16017-16569/1-921     | -                      |             |      |                                       |
| HN-CT160            | D4              | 223 362 519                                       | 73 194 263 315+C 489 523-524d 750                    | 16016-16569/1-921     | -                      |             |      |                                       |
| HN-CT379            | D4              | 223 362 519                                       | 73 194 263 315+C 489 523-524d 750                    | 16035-16569/1-921     | -                      |             |      |                                       |
| HN-CT455            | D4              | 092 223 362 519                                   | 41 73 194 263 315+C 489 523-524d 750                 | 16062-16569/1-921     | -                      |             |      |                                       |
| HN-CT485            | D4              | 092 223 362 519                                   | 41 73 194 263 315+C 489 521-524d 750                 | 16043-16569/1-921     | -                      |             |      |                                       |
| HN-CT182            | D4              | 093 223 362 512 519                               | 73 194 263 315+C 489 521-524d 750                    | 16090-16569/1-921     | -                      |             |      |                                       |
| HN-CT394            | D4              | 176 223 362                                       | 73 94 263 309+C 315+C 489 750                        | 16043-16569/1-878     | -                      |             |      |                                       |
| HN-CT98             | D4              | 092 129 223                                       | 73 94 263 315+C 489 573+3C 750                       | 16012-16569/1-846     | -                      |             |      |                                       |
| HN-CT260            | D4              | 092 223 362                                       | 73 94 146 263 309+C 315+C 489 750 771T               | 16013-16569/1-911     | -                      |             |      |                                       |
| HN-CT83             | D4              | 092 223 362                                       | 73 94 263 309+C 315+C 489 517 750                    | 16033-16569/1-921     | -                      |             |      |                                       |
| HN-CT199            | D4              | 092 223 362                                       | 73 94 263 309+C 315+C 489 517 750                    | 16012-16569/1-921     | -                      |             |      |                                       |
| HN-CT87             | D4              | 092 223 362                                       | 73 94 263 309+C 315+C 489 750                        | 16082-16569/1-921     | -                      |             |      |                                       |
| HN-CT545            | D4              | 092 223 362                                       | 73 94 263 315+C 489 750                              | 16013-16569/1-921     | -                      |             |      |                                       |
| HN-CT55             | D4              | 093 176 223 362                                   | 73 94 194 263 309+C 315+C 489 750                    | 16043-16569/1-921     | -                      |             |      |                                       |
| HN-CT391            | D4              | 129 223 362                                       | 73 263 310d 315+C 489 524+AC 750                     | 16018-16569/1-921     | -                      |             |      |                                       |
| HN-CT546            | D4              | 223 274 362                                       | 73 195 263 298 309+C 315+C 489 750                   | 16013-16569/1-921     | -                      |             |      |                                       |
| HN-CT94             | D4              | 223 274 362                                       | 73 263 298 309+C 315+C 489 524+AC 546 750            | 16082-16569/1-921     | -                      |             |      |                                       |
| HN-CT35             | D4              | 223 274 362                                       | 73 263 298 309+C 315+C 489 546 750                   | 16017-16569/1-911     | -                      |             |      |                                       |
| HN-CT720            | D4              | 174 223 286 362                                   | 73 263 309+C 315+C 489 573+2C 750                    | 16029-16569/1-921     | -                      |             |      |                                       |
| HN-CT3              | D4              | 174 223 290G 311 362                              | 73 152 263 315+C 489 750                             | 16043-16569/1-862     | -                      |             |      |                                       |
| HN-CT670            | D4              | 174 223 311 362 519                               | 73 152 263 315+C 489 750                             | 16012-16569/1-921     | -                      |             |      |                                       |
| HN-CT685            | D4              | 093 174 223 362                                   | 73 263 309+C 315+C 489 573+3C 750                    | 16012-16569/1-873     | -                      |             |      |                                       |
| HN-CT332            | D4              | 172 174 192 223                                   | 73 195 263 309+C 315+C 489 750                       | 16047-16569/1-921     | -                      |             |      |                                       |
| HN-CT330            | D4              | 192 223   | 73 195 263 309+C 315+C 489 750                       | 16024-16569/1-921     | -                      |             |      |                                       |
| HN-CT674            | D4              | 192 223 357                                       | 73 195 263 309+C 315+C 489 750                       | 16013-16569/1-921     | -                      |             |      |                                       |
| HN-CT613            | D4              | 223 256 311 362 519                               | 73 200 263 309+C 315+C 489 750                       | 16013-16569/1-921     | A                      |             |      |                                       |
| HN-CT11             | D5 <sup>f</sup> | 167 188 189 223 362                               | 73 263 315+C 489 523-524d 750                        | 16054-16569/1-921     | -                      |             |      |                                       |
| HN-CT261            | D5 <sup>f</sup> | 086 189 223 362                                   | 73 263 315+C 489 750                                 | 16068-16569/1-921     | -                      |             |      |                                       |
| HN-CT177            | D5 <sup>f</sup> | 164 172 182C 183C 189 223 259 362                 | 73 150 263 309+C 315+C 489 523-524d 750 752          | 16012-16569/1-911     | -                      |             |      |                                       |
| HN-CT423            | D5 <sup>f</sup> | 164 172 182C 183C 189 223 266 362                 | 16T 73 150 263 315+C 489 523-524d 750 752            | 16073-16569/1-833     | -                      |             |      |                                       |
| HN-CT702            | D5 <sup>f</sup> | 164 172 182C 183C 189 223 266 362 390             | 73 150 263 315+C 489 523-524d 750 752                | 16013-16569/1-921     | -                      |             |      |                                       |
| HN-CT311            | D5 <sup>f</sup> | 164 172 182C 183C 189 223 266 362 519             | 73 150 263 309+C 315+C 489 523-524d 750 752          | 16056-16569/1-921     | -                      |             |      |                                       |
| HN-CT577            | D5 <sup>f</sup> | 164 172 182C 183C 189 223 266 362 519             | 73 150 263 309+C 315+C 489 523-524d 750 752          | 16013-16569/1-921     | -                      |             |      |                                       |
| HN-C113             | D5 <sup>f</sup> | 164 172 182C 183C 189 223 266 362 519             | 73 150 263 315+C 489 523-524d 750 752                | 16032-16569/1-921     | -                      |             |      |                                       |
| HN-CT162            | D5 <sup>f</sup> | 179 182C 183C 189 223 360 362                     | 73 146 150 263 309+C 315+C 489 750 752               | 16015-16569/1-921     | -                      |             |      |                                       |
| HN-CT278            | D5 <sup>f</sup> | 182C 183C 189 223 266 302 362                     | 73 146 150 263 309+C 315+C 489 523-524d 750 752      | 16013-16569/1-911     | -                      |             |      |                                       |
| HN-CT429            | D5 <sup>f</sup> | 182C 183C 189 223 360 362                         | 73 146 150 207 263 309+C 315+C 489 750 752           | 16033-16569/1-921     | -                      |             |      |                                       |
| HN-CT187            | D5 <sup>f</sup> | 182C 183C 189 223 360 362                         | 73 150 200 263 309+C 315+C 489 750 752               | 16032-16569/1-921     | -                      |             |      |                                       |
| HN-CT135            | D5 <sup>f</sup> | 092 164 167 172 182C 183C 189 223 266 293 311 362 | 73 150 263 315+C 489 523-524d 750 752                | 16032-16569/1-921     | -                      |             |      |                                       |
| HN-CT468            | D5 <sup>f</sup> | 092 164 182C 183C 189 209 223 266 362             | 73 150 263 315+C 489 523-524d 750 752                | 16043-16569/1-765     | -                      |             |      |                                       |
| HN-CT693            | D5 <sup>f</sup> | 092 164 182C 183C 189 213C 223 362                | 73 150 263 309+C 315+C 489 523-524d 750 752          | 16012-16569/1-921     | -                      |             |      |                                       |
| HN-CT335            | D5 <sup>f</sup> | 093 172 182C 183C 189 223 266 311 362             | 16T 73 150 263 309+C 315+C 489 494A 523-524d 750 752 | 16012-16569/1-911     | -                      |             |      |                                       |
| HNCT2-412           | D5 <sup>f</sup> | 092 172 182C 183C 189 223 266 362                 | 73 150 263 309+C 315+C 489 523-524d 750 752          | 16013-16569/1-806     | -                      |             |      |                                       |
| HNCT2-490           | D5 <sup>f</sup> | 092 164 172 182C 183C 189 223 266 362             | 73 146 150 151 204 263 315+C 489 523-524d 750 752    | 16013-16569/1-836     | -                      |             |      |                                       |
| HNCT2-493           | D5 <sup>f</sup> | 164 172 182C 183C 189 223 266 274 362             | 16T 73 150 263 315+C 489 523-524d 750 752            | 16013-16569/1-806     | -                      |             |      |                                       |
| HNCT2-527           | D5 <sup>f</sup> | 092 164 182C 183C 185 189 193d 223 266 362 519    | 73 150 263 309+C 315+C 489 523-524d 750 752          | 16013-16569/1-836     | -                      |             |      |                                       |
| HNCT2-625           | D5 <sup>f</sup> | 182C 183C 189 223 360 362                         | 73 150 263 309+C 315+C 489 750 752                   | 16013-16569/1-908     | -                      |             |      |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>        | Region 2 <sup>b</sup>                                   | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281_8-289d | 8718 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|---------------------------------------|---|-----------------------|------------------------|-------------|------|---------------------------------------|
| HN-CT209            | D5b        | 148 183C 189 223 362 519              | 73 150 152 185 263 309+C 315+C 456 489 523-524d 681 750 | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT437            | D5b        | 178 183C 189 223 311 362              | 73 150 263 315+C 456 489 681 750                        | 16033-16569/1-921     |                        |             |      |                                       |
| HN-CT136            | D5b        | 182C 183C 189 223 362                 | 73 150 263 315+C 456 489 681 750                        | 16086-16569/1-921     |                        |             |      |                                       |
| HN-CT388            | D5b        | 183C 189 223 357 362 519              | 73 94 150 263 309+C 315+C 456 489 681 750               | 16033-16569/1-863     |                        |             |      |                                       |
| HN-CT244            | D5b        | 183C 189 223 362 519                  | 73 150 204 239 309+C 315+C 456 489 523-524d 681 750     | 16033-16569/1-800     |                        |             |      |                                       |
| HN-CT314            | D5b        | 183C 189 223 362 519                  | 73 150 263 309+C 315+C 456 489 681 750                  | 16044-16569/1-921     |                        |             |      |                                       |
| HN-CT275            | D5b        | 189 223 258T 362 519                  | 73 150 263 315+C 456 489 681 750                        | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT266            | D5b        | 189 223 362                           | 73 150 263 309+C 315+C 456 489 681 750                  | 16085-16569/1-921     |                        |             |      |                                       |
| HN-CT84             | D5b        | 051 183C 189 223 362                  | 73 150 263 309+C 315+C 456 489 681 750                  | 16082-16569/1-921     |                        |             |      |                                       |
| HN-CT364            | D5b        | 093 183C 189 223 311 362              | 73 150 263 315+C 456 489 681 750                        | 16012-16569/1-921     |                        |             |      |                                       |
| HNCT2-426           | D5b        | 092 148 182C 183C 189 223 319 362 519 | 73 150 152 263 309d 315+C 456 489 523-524d 681 750      | 16014-16569/1-836     |                        |             |      |                                       |
| HNCT2-451           | D5b        | 183C 189 223 362 519                  | 73 150 195 263 315+C 456 489 681 750                    | 16013-16569/1-836     |                        |             |      |                                       |
| HNCT2-475           | D5b        | 189 223 362 519                       | 73 146 150 262 263 309+2C 315+C 456 489 681 750         | 16013-16569/1-806     |                        |             |      |                                       |
| HNCT2-528           | D5b        | 183C 189 223 357 362 519              | 73 150 263 309+C 315+C 456 489 681 750                  | 16013-16569/1-908     | -                      |             |      |                                       |
| HNCT2-549           | D5b        | 092 148 183C 189 362 519              | 73 150 152 185 263 315+C 456 489 523-524d 681 750       | 16013-16569/1-783     |                        |             |      |                                       |
| HNCT2-567           | D5b        | 183C 189 223 357 362 519              | 73 150 200 263 309+2C 315+C 456 489 681 750             | 16013-16569/1-823     |                        |             |      |                                       |
| HNCT2-578           | D5b        | 051 183C 189 223 362 519              | 73 150 263 309+C 315+C 459d 489 681 750                 | 16013-16569/1-836     |                        |             |      |                                       |
| HNCT2-580           | D5b        | 182C 183C 189 223 362                 | 73 150 263 315+C 456 489 681 750                        | 16013-16569/1-792     |                        |             |      |                                       |
| HN-CT105            | D5c        | 189 190 193+2C 223 311 316 362        | 73 150 151 152 263 309+C 315+C 489 750                  | 16017-16569/1-921     |                        |             |      |                                       |
| HN-CT309            | D5c        | 189 190 193+2C 223 311 316 362        | 73 150 152 263 295A 309+2C 315+C 489 750                | 16012-16569/1-911     |                        |             |      |                                       |
| HN-CT329            | D5c        | 189 190 193+C 362 390 519             | 73 146 150 152 182 185 217 263 309+C 315+C 489 750      | 16033-16569/1-921     | -                      |             |      |                                       |
| HN-CT245            | D6a        | 189 192 223 274 362                   | 73 263 309+C 315+C 489 709 750                          | 16016-16569/1-921     | -                      |             |      |                                       |
| HN-CT506            | D6a        | 189 223 274 362 519                   | 73 263 309+C 315+C 489 709 750                          | 16061-16569/1-921     | -                      |             |      |                                       |
| HNCT2-510           | D6a        | 189 223 274 362                       | 73 263 309+C 315+C 489 709 750                          | 16014-16569/1-908     | -                      |             |      | 2850-3565=rCRS                        |
| HNCT2-547           | D6a        | 189 192h 223 274 362                  | 73 263 309+C 315+C 489 709 750                          | 16013-16569/1-806     | -                      |             |      | 1180-1930=1438 1719                   |
| HN-CT197            | D6c        | 183C 189 223 311 362                  | 73 152 204 263 315+C 489 523-524d 709 750               | 16012-16569/1-921     | -                      |             |      |                                       |
| HNCT2-575           | D6c        | 183C 189 223 311 362                  | 73 152 263 309+C 315+C 489 709 750                      | 16013-16569/1-836     |                        |             |      | 1180-1930=1438 1719                   |
| HN-CT99             | F          | 304                                   | 73 152 249d 263 309+C 315+C 750                         | 16032-16569/1-921     |                        |             |      |                                       |
| HN-CT16             | F          | 304                                   | 73 194 249d 263 315+C 750                               | 16043-16569/1-846     |                        |             |      |                                       |
| HN-CT114            | F          | 304                                   | 73 195 249d 263 315+C 750                               | 16018-16569/1-921     |                        |             |      |                                       |
| HN-CT435            | F          | 179 304 360                           | 73 249d 263 309+C 315+C 750                             | 16023-16569/1-921     |                        |             |      |                                       |
| HN-CT886            | F          | 221 304 519                           | 73 152 195 249d 263 275 309+C 315+C 750                 | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT658            | F          | 233 304                               | 73 195 249d 263 309+C 315+C 709 750                     | 16010-16569/1-911     |                        |             |      |                                       |
| HN-CT662            | F          | 233 304                               | 73 195 249d 263 309+C 315+C 750                         | 16012-16569/1-911     |                        |             |      |                                       |
| HN-CT274            | F          | 235h 304                              | 73 249d 263 315+C 750 761                               | 16047-16569/1-785     |                        |             |      |                                       |
| HN-CT166            | F          | 304 311                               | 73 152 249d 263 309+C 315+C 750                         | 16090-16569/1-921     |                        |             |      |                                       |
| HN-CT381            | F          | 304 311                               | 73 152 249d 263 309+C 315+C 750                         | 16042-16569/1-921     |                        |             |      |                                       |
| HN-CT86             | F          | 304 311 527                           | 73 249d 263 309+C 315+C 750                             | 16082-16569/1-921     |                        |             |      |                                       |
| HN-CT54             | F          | 086 304                               | 73 249d 263 315+C 750                                   | 16050-16569/1-921     |                        |             |      |                                       |
| HN-CT625            | F1         | 172 183C 189 212 300 304 311 519      | 73 150 195 249d 263 309+C 315+C 489 523-524d 750        | 16046-16569/1-921     | +                      | A           | C A  | 10200-10660=10310 10609               |
| HN-CT75             | F1         | 183C 189 300 304 305 311 519          | 73 146 150 195 249d 263 309+C 315+C 489 523-524d 750    | 16012-16569/1-921     |                        | A           | C A  | 10200-10660=10310 10609               |
| HN-CT308            | F1         | 086 183C 189 249 300 304 519          | 73 146 150 195 249d 263 309+C 315+C 523-524d 750        | 16012-16569/1-921     |                        |             |      |                                       |
| HNCT2-409           | F1         | 182C 183C 189 232A 249 304 311 519    | 73 146 153 249d 263 309+C 315+C 523-524d 750            | 16013-16569/1-869     |                        |             |      |                                       |
| HNCT2-424           | F1         | 172 304 519                           | 73 249d 263 315+C 523-524d 750                          | 16014-16569/1-826     |                        |             |      |                                       |
| HNCT2-443           | F1         | 111 129 266 304 519                   | 73 152 249d 263 315+C 523-524d 709 750                  | 16014-16569/1-783     |                        |             |      |                                       |
| HNCT2-447           | F1         | 129 162 172 304 519                   | 73 94 152 249d 263 309+C 315+C 523-524d                 | 16014-16569/1-651     |                        |             |      |                                       |
| HNCT2-448           | F1         | 111 129 266 304 519                   | 73 152 249d 263 309+C 315+C 523-524d 750                | 16014-16569/1-806     |                        |             |      |                                       |
| HNCT2-455           | F1         | 129 172 304 519                       | 73 249d 263 309+C 315+C 521-524d 750                    | 15647-16569/1-851     |                        |             |      |                                       |
| HNCT2-460           | F1         | 172 182C 183C 189 232A 249 304 311    | 73 152 204 215 249d 263 309+C 315+C 521-524d 750        | 16013-16569/1-910     |                        |             |      |                                       |
| HNCT2-471           | F1         | 172 183C 189 232A 249 304 311         | 73 152 204 249d 263 315+C 521-524d 750                  | 16013-16569/1-782     |                        |             |      |                                       |
| HNCT2-473           | F1         | 111 129 266 304 519                   | 73 152 249d 263 309+C 315+C 523-524d 709 750            | 16014-16569/1-869     |                        |             |      |                                       |
| HNCT2-477           | F1         | 108 129 162 172 304                   | 73 150 249d 263 315+C 521-524d 750                      | 16013-16569/1-836     |                        |             |      |                                       |
| HNCT2-495           | F1         | 129 172 304 519                       | 52 53 54C 71d 73 249d 263 315+C 318 523-524d 629 750    | 16013-16569/1-783     |                        |             |      |                                       |
| HNCT2-518           | F1         | 183C 189 304 519                      | 73 249d 263 309+C 315+C 523-524d 750                    | 16013-16569/1-908     |                        |             |      | 12060-12760=12406                     |
| HNCT2-520           | F1         | 129 172 304 354 519                   | 73 195 249d 263 315+C 523-524d 750                      | 16013-16569/1-873     |                        |             |      |                                       |
| HNCT2-523           | F1         | 129 162 172 304 519                   | 73 249d 263 309+C 315+C 523-524d                        | 16014-16569/1-658     |                        |             |      |                                       |
| HNCT2-546           | F1         | 129 172 304 519                       | 73 249d 263 315+C 523-524d 750                          | 16013-16569/1-836     |                        |             |      |                                       |
| HNCT2-551           | F1         | 129 172 304 519                       | 73 185 249d 263 315+C 523-524d 750                      | 16013-16569/1-865     |                        |             |      |                                       |
| HNCT2-565           | F1         | 093 108 129 154 162 172 304 519       | 73 249d 263 315+C 385 750                               | 16013-16569/1-826     |                        |             |      |                                       |
| HNCT2-572           | F1         | 129 162 172 304 519                   | 73 249d 263 315+C 466G 523-524d 548 750                 | 16013-16569/1-829     |                        |             |      |                                       |
| HNCT2-574           | F1         | 129 162 172 266G 304 390 519          | 73 249d 263 315+C 523-524d 709 750                      | 16013-16569/1-836     |                        |             |      |                                       |
| HNCT2-583           | F1         | 129 162 172 304 519                   | 73 249d 263 309+C 315+C 523-524d 750                    | 16013-16569/1-873     |                        |             |      |                                       |
| HNCT2-605           | F1         | 183C 189 256 304 381 519              | 73 249d 263 315+C 523-524d 750                          | 16013-16569/1-836     |                        |             |      | 12060-12760=12406                     |
| HNCT2-610           | F1         | 189 519                               | 73 150 152 249d 263 309+C 315+C 523-524d 750            | 16013-16569/1-868     |                        |             |      | 12060-12760=12406                     |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>      | Region 2 <sup>b</sup>                                   | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281-8-289d | 8718  | 12406 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|-------------------------------------|---|-----------------------|------------------------|-------------|-------|-------|---------------------------------------|
| HNCT2-612           | F1         | 129 304                             | 73 249d 263 315+C 750                                   | 16013-16569/1-873     |                        |             |       |       |                                       |
| HNCT2-615           | F1         | 129 162 172 304 362 399 519         | 73 249d 263 315+C 523-524d 750                          | 16013-16569/1-836     |                        |             |       |       |                                       |
| HNCT2-619           | F1         | 129 172 304 519                     | 73 249d 263 309+C 315+C 523-524d 750                    | 16013-16569/1-806     |                        |             |       |       |                                       |
| HNCT2-623           | F1         | 129 162 172 218 304 519             | 63 64 66 73 249d 263 309+C 315+C 523-524d 750           | 16013-16569/1-873     |                        |             |       |       |                                       |
| HNCT2-629           | F1         | 126 183< 184 304                    | 73 195 249d 263 309+C 315+C 523-524d 750                | 16013-16569/1-836     |                        |             |       |       | 12060-12760=12406                     |
| HNCT2-657           | F1         | 129 162 172 304 519                 | 73 249d 263 315+C 523-524d 548 750                      | 16013-16569/1-783     |                        |             |       |       |                                       |
| HNCT2-662           | F1         | 129 172 304                         | 73 249d 263 309+C 315+C 523-524d 750                    | 16013-16569/1-806     |                        |             |       |       |                                       |
| HNCT2-667           | F1         | 108 129 162 172 304 519             | 73 150 249d 263 315+C 523-524d 750                      | 16013-16569/1-825     |                        |             |       |       |                                       |
| HNCT2-680           | F1         | 172 304 519                         | 73 249d 263 315+C 523-524d 750                          | 16013-16569/1-836     |                        |             |       |       |                                       |
| HN-CT62             | F1         | 129 172 179 274 304 519             | 73 93 146 249d 263 315+C 523-524d 750                   | 16060-16569/1-921     |                        |             |       |       |                                       |
| HN-CT34             | F1         | 129 172 193 304 519                 | 73 249d 263 309+C 315+C 523-524d 573+C 750              | 16082-16569/1-921     |                        |             |       |       |                                       |
| HN-CT698            | F1         | 129 172 218 304 519                 | 73 249d 263 279 309+C 315+C 523-524d 750                | 16012-16569/1-921     |                        |             |       |       |                                       |
| HN-CT130            | F1         | 129 172 304 311 362 519             | 73 146 152 249d 263 309+C 315+C 521-524d 750            | 16040-16569/1-921     |                        |             |       |       |                                       |
| HN-CT38             | F1         | 129 172 304 311 362 519             | 73 152 195 249d 263 309+C 315+C 521-524d 750            | 16009-16569/1-921     |                        |             |       |       |                                       |
| HN-CT678            | F1         | 129 172 304 311 362 519             | 73 152 195 249d 263 309+C 315+C 521-524d 750            | 16012-16569/1-921     |                        |             |       |       |                                       |
| HN-CT181            | F1         | 129 172 304 311 362 519             | 73 152 234 249d 263 309+C 315+C 521-524d 750            | 16012-16569/1-921     |                        |             |       |       |                                       |
| HN-CT478            | F1         | 129 172 304 311 362 519             | 73 152 234 249d 263 309+C 315+C 521-524d 750            | 16013-16569/1-911     |                        |             |       |       |                                       |
| HN-CT257            | F1         | 129 172 304 311 362 519             | 73 152 249d 263 309+C 315+C 521-524d 750                | 16049-16569/1-921     |                        |             |       |       |                                       |
| HN-CT134            | F1         | 129 172 304 311 497 519             | 73 152 249d 263 315+C 523-524d 750                      | 16013-16569/1-921     |                        |             |       |       |                                       |
| HN-CT397            | F1         | 129 172 304 519                     | 53 54C 71d 73 249d 263 309+C 315+C 318 385 523-524d 750 | 16015-16569/1-921     |                        |             |       |       |                                       |
| HN-CT57             | F1         | 129 172 304 519                     | 73 235 249d 263 309+C 315+C 523-524d 750                | 16033-16569/1-921     | A                      | C           | 10604 |       |                                       |
| HN-CT502            | F1         | 129 172 304 519                     | 73 249d 263 309+C 315+C 523-524d 709 750                | 16009-16569/1-921     |                        |             |       |       |                                       |
| HN-CT318            | F1         | 129 172 304 519                     | 73 249d 263 309+C 315+C 523-524d 750                    | 16012-16569/1-911     |                        |             |       |       |                                       |
| HN-CT584            | F1         | 129 172 304 519                     | 73 249d 263 315+C 523-524d 709 750                      | 16012-16569/1-921     |                        |             |       |       |                                       |
| HN-CT603            | F1         | 129 172 304 519                     | 73 249d 263 315+C 523-524d 709 750                      | 16012-16569/1-921     |                        |             |       |       |                                       |
| HN-CT648            | F1         | 129 172 304 519                     | 73 249d 263 315+C 523-524d 709 750                      | 16013-16569/1-921     |                        |             |       |       |                                       |
| HN-CT632            | F1         | 129 172 304 519                     | 73 249d 263 315+C 523-524d 750                          | 16053-16569/1-911     |                        |             |       |       |                                       |
| HN-CT198            | F1         | 172 304 465 519                     | 73 249d 263 315+C 750                                   | 16032-16569/1-921     |                        |             |       |       |                                       |
| HN-CT208            | F1         | 172 304 519                         | 73 249d 263 315+C 479 523-524d 750                      | 16038-16569/1-921     |                        |             |       |       |                                       |
| HN-CT401            | F1         | 172 304 519                         | 73 249d 263 315+C 523-524d 750                          | 16009-16569/1-911     |                        |             |       |       |                                       |
| HN-CT657            | F1         | 129 148 162 172 244 304 311 335 519 | 73 249d 263 309+C 315+C 523-524d 750                    | 16013-16569/1-853     |                        |             |       |       |                                       |
| HN-CT503            | F1         | 129 162 169 172 304 519             | 73 94 152 249d 263 309+C 315+C 523-524d 750             | 16043-16569/1-921     |                        |             |       |       |                                       |
| HN-CT501            | F1         | 129 162 172 189 304 497 519         | 73 249d 263 309+C 315+C 523-524d 750                    | 16012-16569/1-921     |                        |             |       |       |                                       |
| HN-CT582            | F1         | 129 162 172 243 304                 | 73 151 187T 249d 263 315+C 523-524d 750                 | 16012-16569/1-921     |                        |             |       |       |                                       |
| HN-CT235            | F1         | 129 162 172 261 304 519             | 73 195 249d 263 315+C 523-524d 593 750                  | 16019-16569/1-921     |                        |             |       |       |                                       |
| HN-CT178            | F1         | 129 162 172 266 304 519             | 73 151 153 249d 263 315+C 523-524d 709 750              | 16065-16569/1-921     |                        |             |       |       |                                       |
| HN-CT153            | F1         | 129 162 172 266 304 519             | 73 153 249d 263 315+C 523-524d 709 750                  | 16084-16569/1-863     |                        |             |       |       |                                       |
| HN-CT184            | F1         | 129 162 172 266 304 519             | 73 153 249d 263 315+C 523-524d 709 750                  | 16091-16569/1-921     |                        |             |       |       |                                       |
| HN-CT76             | F1         | 129 162 172 287 304 399 519         | 73 249d 263 315+C 523-524d 750                          | 16082-16569/1-921     |                        |             |       |       |                                       |
| HN-CT411            | F1         | 129 162 172 304 311 519             | 73 152 249d 263 309+C 315+C 477 523-524d 750            | 16023-16569/1-911     |                        |             |       |       |                                       |
| HN-CT217            | F1         | 129 162 172 304 311 519             | 73 152 249d 263 315+C 513 523-524d 750                  | 16012-16569/1-921     |                        |             |       |       |                                       |
| HN-CT568            | F1         | 129 162 172 304 362 399 519         | 73 249d 263 315+C 523-524d 709 750                      | 16013-16569/1-921     |                        |             |       |       |                                       |
| HN-CT346            | F1         | 129 162 172 304 399 519             | 73 151 152 249d 263 309+C 315+C 523-524d 750            | 16009-16569/1-921     |                        |             |       |       |                                       |
| HN-CT50             | F1         | 129 162 172 304 399 519             | 73 249d 263 309+C 315+C 372 523-524d 750                | 16084-16569/1-921     |                        |             |       |       |                                       |
| HN-CT562            | F1         | 129 162 172 304 399 519             | 73 249d 263 309+C 315+C 523-524d 750 801                | 16013-16569/1-921     |                        |             |       |       |                                       |
| HN-CT15             | F1         | 129 162 172 304 399 519             | 73 249d 263 315+C 523-524d 750                          | 16032-16569/1-921     |                        |             |       |       |                                       |
| HN-CT522            | F1         | 129 162 172 304 399 519             | 73 249d 263 315+C 523-524d 750                          | 16022-16569/1-921     |                        |             |       |       |                                       |
| HN-CT597            | F1         | 129 162 172 304 399 519             | 73 249d 263 315+C 523-524d 750                          | 16012-16569/1-921     |                        |             |       |       |                                       |
| HN-CT129            | F1         | 129 162 172 304 399 519             | 73 249d 263 315+C 523-524d 750                          | 16043-16569/1-892     |                        |             |       |       |                                       |
| HN-CT575            | F1         | 129 162 172 304 497 519             | 73 249d 263 315+C 523-524d 750                          | 16013-16569/1-911     |                        |             |       |       |                                       |
| HN-CT337            | F1         | 129 162 172 304 519                 | 64 73 249d 263 309+C 315+C 523-524d 750                 | 16043-16569/1-921     |                        |             |       |       |                                       |
| HN-CT145            | F1         | 129 162 172 304 519                 | 73 152 200 249d 263 315+C 523-524d 750                  | 16078-16569/1-921     |                        |             |       |       |                                       |
| HN-CT123            | F1         | 129 162 172 304 519                 | 73 249d 263 315+C 523-524d 750                          | 16033-16569/1-921     |                        |             |       |       |                                       |
| HN-CT712            | F1         | 129 162 172 304 519                 | 73 249d 263 315+C 523-524d 750                          | 16012-16569/1-921     |                        |             |       |       |                                       |
| HN-CT409            | F1         | 108 129 162 172 214 304 519         | 73 249d 263 315+C 523-524d 750                          | 16013-16569/1-911     |                        |             |       |       |                                       |
| HN-CT53             | F1         | 108 129 162 172 256 362 519 527     | 73 143 249d 263 315+C 523-524d 750                      | 16012-16569/1-856     |                        |             |       |       |                                       |
| HN-CT150            | F1         | 108 129 162 172 270 304 519         | 73 249d 263 309+C 315+C 523-524d 750                    | 16019-16569/1-921     |                        |             |       |       |                                       |
| HN-CT410            | F1         | 108 129 162 172 284 304 519         | 73 89 93 150 249d 263 309+C 315+C 513 523-524d 750      | 16009-16569/1-921     |                        |             |       |       |                                       |
| HN-CT564            | F1         | 108 129 162 172 304                 | 73 249d 263 315+C 523-524d 750                          | 16013-16569/1-921     |                        |             |       |       |                                       |
| HN-CT520            | F1         | 108 129 162 172 304 311 519         | 73 249d 263 315+C 523-524d 750                          | 16013-16569/1-921     |                        |             |       |       |                                       |
| HN-CT448            | F1         | 108 129 162 172 304 519             | 73 152 199 249d 263 315+C 523-524d 750                  | 16047-16569/1-921     |                        |             |       |       |                                       |
| HN-CT195            | F1         | 108 129 162 172 304 519             | 73 195 249d 263 315+C 523-524d 750                      | 16032-16569/1-921     |                        |             |       |       |                                       |
| HN-CT351            | F1         | 108 129 162 172 304 519             | 73 195 249d 263 315+C 523-524d 750                      | 16033-16569/1-921     |                        |             |       |       |                                       |
| HN-CT641            | F1         | 108 129 162 172 304 519             | 73 249d 263 309+C 315+C 523-524d 750                    | 16012-16569/1-921     |                        |             |       |       |                                       |
| HN-CT140            | F1         | 108 129 162 172 304 519             | 73 249d 263 309+C 315+C 523-524d 750                    | 16027-16569/1-921     |                        |             |       |       |                                       |
| HN-CT563            | F1         | 108 129 162 172 304 519             | 73 249d 263 315+C 523-524d 709 750                      | 16013-16569/1-921     |                        |             |       |       |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>    | Region 2 <sup>b</sup>                                | Coverage <sup>c</sup>  | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|-----------------------------------|--|------------------------|---------------------------------------|
|                     |            |                                   |  | 5176 A/Iu <sup>d</sup> |                                       |
| HN-CT312            | F1         | 086 108 129 162 172 293 304 519   | 56+C 58 73 146 150 249d 263 309+C 315+C 523-524d 750 | 16047-16569/1-833      |                                       |
| HN-CT251            | F1         | 092 108 129 162 172 304 519       | 73 150 207 249d 263 309+C 315+C 523-524d 750         | 16079-16569/1-921      |                                       |
| HN-CT449            | F1         | 129 162 172 189 304 519           | 73 249d 263 315+C 523-524d 548 750                   | 16055-16569/1-921      |                                       |
| HN-CT238            | F1         | 129 162 172 304 519               | 73 249 263 309+C 315+C 523-524d 548 750              | 16050-16569/1-921      |                                       |
| HN-CT241            | F1         | 129 162 172 304 519               | 73 249d 263 315+C 523-524d 548 750                   | 16033-16569/1-833      |                                       |
| HN-CT419            | F1         | 129 162 172 304 519               | 73 249d 263 315+C 523-524d 548 750                   | 16047-16569/1-841      |                                       |
| HN-CT580            | F1         | 129 162 172 304 519               | 73 249d 263 315+C 523-524d 548 750                   | 16012-16569/1-911      |                                       |
| HN-CT67             | F1         | 148 183C 189 232A 249 304 311 519 | 73 199 204 249d 263 315+C 750                        | 16012-16569/1-921      |                                       |
| HN-CT43             | F1         | 183C 189 232A 249 304 519         | 73 152 249d 263 309+C 315+C 523-524d 750             | 16046-16569/1-921      |                                       |
| HN-CT389            | F1         | 126 183C 189 304 519              | 73 152 249d 263 309+C 315+C 523-524d 750             | 16015-16569/1-921      |                                       |
| HN-CT491            | F1         | 182C 183C 189 304                 | 73 204 249d 263 309+4C 311+A 315+C 372 573+2C 750    | 16090-16569/1-795      |                                       |
| HN-CT556            | F1         | 182C 183C 189 304 519             | 73 249d 263 309+2C 315+C 523-524d 735 750            | 16013-16569/1-793      |                                       |
| HN-CT587            | F1         | 182C 183C 189 304 519             | 73 249d 263 309+C 315+C 523-524d 735 750             | 16012-16569/1-911      |                                       |
| HN-CT7              | F1         | 183C 189 300 304 519              | 73 150 195 249d 263 315+C 523-524d 750               | 16040-16569/1-921      |                                       |
| HN-CT465            | F1         | 183C 189 304 362 519              | 73 249d 263 309+C 315+C 523-524d 750                 | 16063-16569/1-756      |                                       |
| HN-CT559            | F1         | 079 086 182C 183C 189 271 304 519 | 73 249d 263 309+2C 315+C 523-524d 750                | 16013-16569/1-911      |                                       |
| HN-CT583            | F1         | 079 086 182C 183C 189 271 304 519 | 73 249d 263 309+2C 315+C 523-524d 750                | 16012-16569/1-911      |                                       |
| HN-CT535            | F1         | 093 183C 189 304 359 519          | 73 249d 263 309+C 315+C 523-524d 750                 | 16047-16569/1-921      |                                       |
| HN-CT6              | F1         | 111 129 266 304 519               | 73 152 249d 263 315+C 523-524d 709 750               | 16039-16569/1-921      |                                       |
| HN-CT358            | F1         | 172 183C 189 304 355 519          | 73 249 263 309+C 315+C 750                           | 16012-16569/1-911      |                                       |
| HN-CT125            | F1         | 183C 189 304 355 519              | 73 249d 263 315+C 750                                | 16012-16569/1-921      |                                       |
| HN-CT354            | F2         | 093                               | 73 235 249d 263 315+C 750                            | 16032-16569/1-876      | A C A                                 |
| HN-CT408            | F2         | 126 203 259 291 304 519           | 73 249d 263 315+C 750                                | 16013-16569/1-911      |                                       |
| HN-CT336            | F2         | 129 203 304 519                   | 73 249d 263 309+C 315+C 750                          | 16014-16569/1-911      |                                       |
| HN-CT113            | F2         | 167 203 234 304 318 519           | 73 182 249d 263 315+C 750                            | 16013-16569/1-921      |                                       |
| HN-CT631            | F2         | 167 203 304 318 519               | 73 182 249d 263 315+C 750                            | 16013-16569/1-921      |                                       |
| HN-CT681            | F2         | 203 272 304 519                   | 73 249d 263 315+C 750                                | 16012-16569/1-921      |                                       |
| HN-CT283            | F2         | 203 291 304 519                   | 73 249d 263 309+2C 315+C 750                         | 16015-16569/1-921      |                                       |
| HN-CT44             | F2         | 203 304 519                       | 73 249d 263 309+C 315+C 750                          | 16019-16569/1-921      |                                       |
| HN-CT380            | F2         | 203 304 519                       | 73 249d 263 315+C 750                                | 16032-16569/1-921      |                                       |
| HN-CT18             | F2         | 092A 189 291 304                  | 73 249d 263 315+C 523-524d 750                       | 16015-16569/1-921      |                                       |
| HN-CT507            | F2         | 092A 189 291 304 519              | 73 249d 263 309+2C 315+C 523-524d 750                | 16064-16569/1-921      |                                       |
| HN-CT155            | F2         | 092A 291 304 519                  | 73 195 249d 263 315+C 523-524d 750                   | 16079-16569/1-921      |                                       |
| HN-CT101            | F2         | 093 203 231 291 304 519           | 73 195 249d 263 309+C 315+C 750                      | 16017-16569/1-921      |                                       |
| HN-CT626            | F2         | iCRS                              | 73 152 235 249d 263 309+C 315+C 750                  | 16012-16569/1-921      | A C A                                 |
| HN-CT453            | F2         | iCRS                              | 73 235 249d 263 315+C 750                            | 16080-16569/1-921      | A C A                                 |
| HNCT2-419           | F2         | 203 291 304 519                   | 73 249d 263 315+C 750                                | 16014-16569/1-806      |                                       |
| HNCT2-422           | F2         | 203 291 304 519                   | 73 146 228 249d 263 309+C 315+C 523-524d 750         | 16014-16569/1-806      |                                       |
| HNCT2-428           | F2         | 129 189 203 294 519               | 73 249d 263 315+C 750                                | 16014-16569/1-836      |                                       |
| HNCT2-437           | F2         | iCRS                              | 73 235 249d 263 309+2C 315+C 750                     | 16014-16569/1-836      | 12060-12760=12338 12709               |
| HNCT2-484           | F2         | 266 291 304                       | 73 146 249d 263 315+C 523-524d 750                   | 16013-16569/1-836      |                                       |
| HNCT2-487           | F2         | 203 291 304 519                   | 73 249d 263 309+C 315+C 750                          | 16014-16569/1-806      |                                       |
| HNCT2-529           | F2         | 203 304 519                       | 73 249d 263 309+C 315+C 750                          | 16013-16569/1-836      |                                       |
| HNCT2-594           | F2         | 266 291 304                       | 73 146 249d 263 315+C 523-524d 750                   | 16013-16569/1-840      |                                       |
| HNCT2-608           | F2         | 203 291 304 519                   | 73 249d 263 315+C 750                                | 16013-16569/1-836      |                                       |
| HNCT2-641           | F2         | 092A 291 304                      | 73 195 249d 263 309+C 315+C 523-524d                 | 16013-16569/1-675      |                                       |
| HNCT2-648           | F2         | 203 304 519                       | 73 152 249d 263 309+C 315+C 750                      | 16013-16569/1-873      |                                       |
| HNCT2-652           | F2         | 092A 291 304                      | 16T 73 198 236 249d 263 315+C 750                    | 16013-16569/1-783      |                                       |
| HNCT2-655           | F2         | 304 311                           | 73 249 263 309+C 315+C 750                           | 16013-16569/1-806      | 12060-12760=12338                     |
| HNCT2-661           | F2         | 203 291 304                       | 56+A 58 73 249d 263 309+C 315+C 523-524d 750         | 16013-16569/1-771      |                                       |
| HNCT2-675           | F2         | 304                               | 73 152 249d 263 315+C 750                            | 16013-16569/1-836      | 12060-12760=12338                     |
| HN-CT551            | F3         | 220C 227 298 362                  | 73 152 249d 263 309+2C 315+C 750                     | 16013-16569/1-921      |                                       |
| HN-CT77             | F3         | 234 260 298 355 362               | 73 207 249d 263 309+2C 315+C 709 750                 | 16082-16569/1-795      |                                       |
| HN-CT269            | F3         | 260 298 355 362                   | 73 207 249d 263 309+C 315+C 709 750                  | 16055-16569/1-921      |                                       |
| HN-CT303            | F3         | 260 298 355 362                   | 73 207 249d 263 309+C 315+C 709 750                  | 16033-16569/1-921      |                                       |
| HN-CT469            | F3         | 260 298 355 362                   | 73 207 249d 263 309+C 315+C 709 750                  | 16047-16569/1-921      |                                       |
| HN-CT717            | F3         | 260 298 355 362                   | 73 207 249d 263 309+C 315+C 709 750                  | 16012-16569/1-921      |                                       |
| HN-CT402            | F3         | 260 298 355 362 526               | 73 207 249d 263 309+C 315+C 709 750                  | 16013-16569/1-911      |                                       |
| HN-CT443            | F3         | 260 298 355 362 526               | 73 207 249d 263 309+C 315+C 709 750                  | 16043-16569/1-921      |                                       |
| HNCT2-411           | F3         | 093 209 298 355 362               | 73 195 249d 263 309+C 315+C 524+AC 750               | 16014-16569/1-806      |                                       |
| HNCT2-483           | F3         | 260 298 355 362                   | 73 204 207 249d 263 315+C 709 750                    | 16013-16569/1-783      |                                       |
| HNCT2-548           | F3         | 174 260 298 355 362               | 73 207 249d 263 309+C 315+C 709 750                  | 16013-16569/1-806      |                                       |
| HNCT2-636           | F3         | 220C 227 298 362                  | 73 152 249d 263 309+C 315+C 750                      | 16013-16569/1-908      |                                       |
| HNCT2-677           | F3         | 220C 227 298 362                  | 73 152 249d 263 309+C 315+C 750                      | 16013-16569/1-900      |                                       |
| HN-CT118            | F4         | 126 140 207 304 362 399           | 73 146 249d 263 309+2C 315+C 317A 750                | 16047-16569/1-921      |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>  | Region 2 <sup>b</sup>                                | Coverage <sup>c</sup> | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|---------------------------------|--|-----------------------|---------------------------------------|
| HN-CT518            | F4         | 129 185 207 399 519             | 73 146 249d 263 281 315+C 573+5C 750                 | 16013-16569/1-870     |                                       |
| HN-CT594            | F4         | 129 185 207 399 519             | 73 146 249d 263 281 315+C 573+5C 750                 | 16013-16569/1-863     |                                       |
| HN-CT673            | F4         | 207 304 362 399                 | 73 146 152 249d 263 281 315+C 750                    | 16012-16569/1-921     |                                       |
| HN-CT231            | F4         | 207 304 399                     | 73 146 152 249d 263 281 315+C 538T 750               | 16043-16569/1-921     |                                       |
| HN-CT357            | F4         | 207 304 399                     | 73 146 152 249d 263 281 315+C 750                    | 16032-16569/1-921     |                                       |
| HN-CT646            | F4         | 218 304 311 519                 | 73 249 263 309+C 315+C 513 573+3C 750                | 16012-16569/1-846     |                                       |
| HNCT2-532           | F4         | 126 140 207 304 362 399         | 73 146 249d 263 309+C 315+C 317A 750                 | 16013-16569/1-859     |                                       |
| HN-CT510            | G          | 157 220 223 362 519             | 73 263 309+C 315+C 489 593 709 750                   | 16009-16569/1-921 +   |                                       |
| HN-CT569            | G          | 220 223 362 519                 | 73 263 309+C 315+C 372 489 593 709 750               | 16013-16569/1-921 +   |                                       |
| HN-CT317            | G          | 223 261 362 519                 | 73 200 263 315+C 489 593 709 750                     | 16049-16569/1-921 +   |                                       |
| HN-CT639            | G          | 223 261 362 519                 | 73 263 315+C 489 523-524d 593 709 750                | 16012-16569/1-921 +   |                                       |
| HN-CT333            | G          | 223 311 362                     | 73 152 263 309+C 315+C 489 709 750                   | 16042-16569/1-921 +   |                                       |
| HN-CT691            | G          | 223 362 399 519                 | 73 263 309+C 315+C 374 489 593 709 750               | 16012-16569/1-921 +   |                                       |
| HN-CT220            | G          | 223 362 519                     | 73 152 263 315+C 489 593 709 750                     | 16012-16569/1-921 +   |                                       |
| HN-CT2              | G          | 223 362 519                     | 73 263 309+C 315+C 489 709 750                       | 16032-16569/1-921 +   |                                       |
| HN-CT229            | G          | 223 362 519                     | 73 263 315+C 489 593 709 750                         | 16040-16569/1-911     |                                       |
| HN-CT73             | G          | 051 189 223 253 362 519         | 73 263 309+C 315+C 489 593 709 750                   | 16012-16569/1-921 +   |                                       |
| HN-CT629            | G          | 051 189 223 362 519             | 73 185 188 263 309+C 315+C 489 593 709 750           | 16029-16569/1-902 +   |                                       |
| HN-CT488            | G          | 092 126 223 362 519             | 73 263 315+C 489 523-524d 709 750                    | 16047-16569/1-921 +   |                                       |
| HNCT2-436           | G          | 092 223 274 362                 | 73 143 152 263 309+C 315+C 489 709 750               | 16014-16569/1-806 +   |                                       |
| HNCT2-472           | G          | 114A 223 243 362 519            | 73 191+A 194 198 204 263 309+C 315+C 489 709 750     | 16014-16569/1-806 +   |                                       |
| HNCT2-505           | G          | 223 274 362                     | 73 143 263 315+C 489 675 709 750                     | 16013-16569/1-826 +   |                                       |
| HNCT2-530           | G          | 223 274 311 362                 | 73 263 315+C 489 709 750                             | 16013-16569/1-826 +   | 4535-5098=4769 4833                   |
| HNCT2-542           | G          | 093 189 223 278 362             | 73 260 263 309+C 315+C 489 709 750                   | 16013-16569/1-908 +   |                                       |
| HNCT2-544           | G          | 214 223 362                     | 73 152 263 309+C 315+C 489 709 750                   | 16013-16569/1-806 +   | 4529-5098=4833; 5810-6673=rCRS        |
| HNCT2-591           | G          | 092 223 278 362                 | 73 152 263 315+C 489 709 750                         | 16013-16569/1-806 +   | 4540-5098=4769 4833 4958              |
| HNCT2-642           | G          | 109 201 223 274 362             | 73 143 152 263 315+C 489 709 750                     | 16013-16569/1-836 +   |                                       |
| HNCT2-664           | G          | 223 293 362 519                 | 73 263 297 309+C 315+C 489 709 750                   | 16013-16569/1-806 +   | 4240-4960=4769 4833                   |
| HNCT2-676           | G          | 189 223 265C 274 362            | 73 143 152 263 315+C 489 573+3C                      | 16013-16569/1-573 +   |                                       |
| HN-CT607            | G          | 223 325 362 519                 | 73 150 263 309+C 315+C 489 709 750                   | 16012-16569/1-921     |                                       |
| HN-CT659            | G          | 126 145 184 223 290 362 519     | 73 150 263 309+C 315+C 489 709 750                   | 16013-16569/1-911     |                                       |
| HN-CT61             | G          | 184 223 290 362 519             | 73 150 263 309+C 315+C 489 513 709 750               | 16082-16569/1-921     |                                       |
| HN-CT328            | G          | 184 223 362 519                 | 73 257 263 315+C 489 709 750                         | 16090-16569/1-921     |                                       |
| HN-CT436            | G          | 223 362 519                     | 73 263 309+C 315+C 489 593 709 750                   | 16043-16569/1-921     |                                       |
| HN-CT680            | G          | 129 172 223 278 362             | 73 263 291T 315+C 489 709 750                        | 16012-16569/1-921     |                                       |
| HN-CT621            | G          | 223 278 362                     | 73 195 263 315+C 489 709 750                         | 16012-16569/1-921     |                                       |
| HN-CT352            | G          | 092 223 278 362                 | 73 152 263 309+C 315+C 489 709 750                   | 16032-16569/1-921 +   |                                       |
| HN-CT249            | G          | 092 223 278 362                 | 73 152 263 309+C 315+C 489 709 750                   | 16027-16569/1-921 +   |                                       |
| HN-CT500            | G          | 093 223 278 362 519             | 73 151 152 263 315+C 489 595 709 750                 | 16012-16569/1-921     |                                       |
| HN-CT204            | G          | 223 227 278 293 319 362         | 73 146 207 263 315+C 489 750                         | 16012-16569/1-921     |                                       |
| HN-CT707            | G          | 223 234 278 362                 | 73 152 263 315+C 489 709 750                         | 16012-16569/1-921     |                                       |
| HN-CT169            | G          | 093 147 223 227 234 278 309 362 | 73 152 263 315+C 489 573+C 709 750                   | 16040-16569/1-921     |                                       |
| HN-CT461            | G          | 223 249 274 311 362             | 73 263 315+C 489 709 750                             | 16033-16569/1-870 +   |                                       |
| HN-CT221            | G          | 223 274 362 519                 | 73 263 315+C 489 709 750                             | 16040-16569/1-921     |                                       |
| HN-CT227            | G          | 186 223 274 362                 | 73 143 152 195 263 315+C 489 709 750                 | 16016-16569/1-911     |                                       |
| HN-CT206            | G          | 186 223 274 362                 | 73 143 152 263 315+C 489 709 750                     | 16012-16569/1-921     |                                       |
| HN-CT688            | G          | 223 259H 274                    | 73 143 263 315+C 489                                 | 16013-16569/1-670     |                                       |
| HN-CT651            | G          | 223 274 309 362                 | 73 143 263 315+C 489 709 750                         | 16013-16569/1-921     |                                       |
| HN-CT566            | G          | 093 114A 215 223 362 519        | 73 191+A 194 204 263 309+C 315+C 456 485 489 709 750 | 16013-16569/1-921     |                                       |
| HN-CT295            | G          | 093 114A 223 243 362 519        | 73 191+A 194 203 204 263 309+C 315+C 489 709 750     | 16012-16569/1-911     |                                       |
| HNCT2-454           | HV         | 519                             | 263 315+C 750  | 16013-16569/1-836     |                                       |
| HN-CT151            | M*         | 189 223 274                     | 73 263 315+C 489 709 750                             | 16032-16569/1-921 +   |                                       |
| HN-CT299            | M*         | 092 223 519                     | 73 263 309+C 315+C 489 750                           | 16085-16569/1-921     | 10200-10660=10398 10400               |
| HNCT2-425           | M*         | 172 223 324 362                 | 73 146 152 183 195 263 309+C 315+C 489 750           | 16014-16569/1-873 +   | 2840-3600=3394                        |
| HNCT2-496           | M*         | 129 223 278 362 390             | 73 263 315+C 489 709 750                             | 16013-16569/1-836 +   | 3670-4400=rCRS; 4540-5098=4769        |
| HNCT2-622           | M*         | 223 249 362                     | 73 263 309+C 315+C 489 524+AC 750                    | 16013-16569/1-836 +   | 4240-4960=4769 4824                   |
| HN-CT504            | M10        | 129 213 223 311                 | 73 263 309+C 315+C 489 573+C 709 750                 | 16012-16569/1-852     |                                       |
| HN-CT390            | M10        | 129 219 223 311 526             | 73 151 263 309+C 315+C 489 573+C 709 750             | 16024-16569/1-887     |                                       |
| HN-CT665            | M10        | 129 223 233 311                 | 73 143 263 315+C 489 523-524d 573+AC 709 750         | 16012-16569/1-871     |                                       |
| HN-CT40             | M10        | 129 223 311                     | 73 263 309+C 315+C 489 573+C 709 750                 | 16016-16569/1-870     |                                       |
| HN-CT664            | M10        | 129 223 311                     | 73 263 309+C 315+C 489 573+5C 709 750                | 16012-16569/1-852     |                                       |
| HN-CT542            | M10        | 129 223 311                     | 73 263 315+C 489 573-5C 709 750                      | 16055-16569/1-849     |                                       |
| HN-CT359            | M10        | 129 223 311 526                 | 73 263 309+C 315+C 489 573+C 709 750                 | 16032-16569/1-878     |                                       |
| HN-CT313            | M10        | 193 223 311 357                 | 73 146 263 315+C 489 523-524d 573+AC 709 750         | 16085-16569/1-863     |                                       |
| HN-CT285            | M10        | 223 311 519                     | 73 94 146 263 309+C 315+C 489 573+3C 709 750         | 16012-16569/1-852     |                                       |
| HN-CT9              | M10        | 093 129 223 311                 | 73 228 263 309+C 315+C 489 573+3C 709 750            | 16042-16569/1-776     |                                       |
| HNCT2-463           | M10        | 066 223 311                     | 73 263 315+C 489 573+4C                              | 16013-16569/1-573     |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>  | Region 2 <sup>b</sup>                                      | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281_8-289d | 8718 | 12406 | Additional polymorphisms <sup>e</sup>     |
|---------------------|------------|---------------------------------|--|-----------------------|------------------------|-------------|------|-------|---|
| HNCT2-476           | M10        | 223 256 311 399                 | 73 263 315+C 489 573+5C                                    | 16013-16569/1-573     | +                      |             |      |       | 12370-13860=12549 12705 12976 13152       |
| HNCT2-525           | M10        | 129 223 311                     | 73 263 309+C 315+C 489 573+3C                              | 16014-16569/1-573     | +                      |             |      |       | 12370-13860=12549 12705 13135 13152       |
| HNCT2-600           | M10        | 129 223 311                     | 73 263 309+C 315+C 489 573+5C                              | 16013-16569/1-573     | +                      |             |      |       | 12370-13860=12534 12549 12705 13135 13152 |
| HNCT2-617           | M10        | 093 129 193 223 311 357 497 519 | 73 146 151 263 309+C 315+C 489 523-524d 573+4C             | 16013-16569/1-573     |                        |             |      |       |   |
| HNCT2-638           | M10        | 066 223 249 311 519             | 73 150 263 315+C 489 573+2C 593 709 750                    | 16013-16569/1-783     | +                      |             |      |       | 8605-8860=8793 8856 8860                  |
| HN-CT440            | M10        | 129 193 223 311 357 497 519     | 73 146 263 309+C 315+C 489 573+3C 709 750                  | 16037-16569/1-816     |                        |             |      |       |   |
| HN-CT265            | M10        | 193 223 311 357 497             | 73 146 263 309+C 315+C 489 573+3C 709 750                  | 16033-16569/1-863     |                        |             |      |       |   |
| HN-CT548            | M10        | 193 223 311 357 497 519 526     | 73 146 152 263 315+C 489 523-524d 573+4C 709 750           | 16013-16569/1-870     |                        |             |      |       |   |
| HN-CT636            | M10        | 093 129 145 223 269 311 497     | 73 94 146 263 309+C 315+C 489 523-524d 573+3C 709 750      | 16012-16569/1-825     |                        |             |      |       |   |
| HN-CT176            | M10        | 093 129 193 223 311 357 497 519 | 73 146 151 263 309+C 315+C 489 523-524d 573+3C 709 750     | 16012-16569/1-863     |                        |             |      |       |   |
| HN-CT560            | M10        | 093 129 223 311 357 487 497     | 73 263 309+C 315+C 489 523-524d 573+3C 709 750             | 16013-16569/1-852     |                        |             |      |       |   |
| HNCT2-500           | M11        | 223                             | 73 198 200 215 263 309+C 315+C 318 326 489 739 750         | 16014-16569/1-806     |                        |             |      |       |   |
| HNCT2-573           | M11        | 223                             | 73 152 198 200 215 263 309+C 315+C 318 326 489 750         | 16013-16569/1-806     |                        |             |      |       |   |
| HNCT2-584           | M11        | 173 223                         | 73 146 152 195 198 215 263 309+C 315+C 318 326 489 739 750 | 16013-16569/1-840     |                        |             |      |       |   |
| HN-CT146            | M11        | 126 223 344                     | 73 198 200 263 309+C 315+C 318 326 489 750                 | 16033-16569/1-841     |                        |             |      |       |   |
| HN-CT447            | M11        | 223 362                         | 42+G 73 198 200 204 263 309+C 315+C 318 326 489 750        | 16063-16569/1-752     |                        |             |      |       |   |
| HNCT2-488           | M12        | 223 234 287 290 362             | 73 125 127 128 263 309+C 315+C 318 489 513 523-524d 750    | 16014-16569/1-806     |                        |             |      |       |   |
| HN-CT682            | M12        | 175 223 290 362 519             | 73 125 127 128 263 315+C 318 489 513 523-524d 750          | 16012-16569/1-921     |                        |             |      |       |   |
| HN-CT460            | M12        | 176 223 274 290 362             | 73 125 127 128 263 309+C 315+C 318 489 513 523-524d 750    | 16007-16569/1-911     |                        |             |      |       |   |
| HN-CT17             | M12        | 223 234 287 290 362             | 73 125 127 128 263 309+C 315+C 318 489 513 523-524d 750    | 16001-16569/1-921     |                        |             |      |       |   |
| HN-CT247            | M12        | 093 223 234 290 311             | 73 125 127 128 146 152 263 309+C 315+C 318 326 489 750     | 16044-16569/1-921     |                        |             |      |       |   |
| HN-CT534            | M13        | 145 148 188 189 223 311 381     | 73 152 263 309+C 315+C 489 750                             | 16012-16569/1-921     |                        |             |      |       |   |
| HNCT2-585           | M20        | 086 129 209 223 272 519         | 73 152 225 249d 263 315+C 316 489 523-524dh                | 16013-16569/1-524     | +                      |             |      |       | 10215-10960=10274 10398 10400 10679 10873 |
| HNCT2-670           | M33        | 093 104 111 223 235 362 519     | 73 263 309+C 315+C 316h 489 750                            | 16013-16569/1-783     | +                      |             |      |       |   |
| HNCT2-597           | M71        | 223 269 271 368                 | 73 150 151 263 309+C 315+C 489 750                         | 16013-16569/1-827     |                        |             |      |       |   |
| HNCT2-561           | M74        | 223 274 311 362 381             | 63 64 66 73 263 309+C 315+C 489 750                        | 16013-16569/1-806     |                        |             |      |       |   |
| HN-CT193            | M74        | 093 223 311 362                 | 63 64 66 73 183 215 263 309+C 315+C 489 523-524d 750       | 16089-16569/1-921     |                        |             |      |       |   |
| HN-CT230            | M7b        | 129 172 223 255 293T 297        | 73 150 159 199 263 315+C 489 750                           | 16078-16569/1-921     |                        |             |      |       |   |
| HN-CT1              | M7b        | 129 174 183C 189 223 297        | 73 150 199 204 263 309+C 315+C 489 750                     | 16086-16569/1-921     |                        |             |      |       |   |
| HN-CT427            | M7b        | 129 174 183C 189 223 297        | 73 150 199 204 263 309+C 315+C 489 750                     | 16064-16569/1-921     |                        |             |      |       |   |
| HN-CT124            | M7b        | 129 183C 189 223 256 297 519    | 73 150 199 204 207 263 315+C 489 750                       | 16043-16569/1-921     |                        |             |      |       |   |
| HN-CT321            | M7b        | 129 183C 189 223 297 310 353    | 73 150 199 204 263 315+C 316 489 750                       | 16012-16569/1-921     |                        |             |      |       |   |
| HN-CT466            | M7b        | 129 189 209 214 223 297 399 519 | 73 150 199 263 309+C 315+C 489 750                         | 16064-16569/1-921     |                        |             |      |       |   |
| HN-CT262            | M7b        | 129 189 223 297                 | 73 146 150 199 263 309+C 315+C 456 489 750                 | 16043-16569/1-921     |                        |             |      |       |   |
| HN-CT149            | M7b        | 129 189 223 297                 | 73 150 199 204 263 309+C 315+C 456 489 750                 | 16031-16569/1-921     |                        |             |      |       |   |
| HN-CT165            | M7b        | 129 189 223 297                 | 73 150 199 204 263 309+C 315+C 456 489 750                 | 16010-16569/1-921     |                        |             |      |       |   |
| HN-CT340            | M7b        | 129 189 223 297                 | 73 150 199 204 263 309+C 315+C 456 489 750                 | 16012-16569/1-921     |                        |             |      |       |   |
| HN-CT610            | M7b        | 129 189 223 297                 | 73 150 199 263 309+C 315+C 332 489 524+AC 750              | 16012-16569/1-921     |                        |             |      |       |   |
| HN-CT700            | M7b        | 129 189 223 297                 | 73 150 199 263 309+C 315+C 489 573+3C 750                  | 16013-16569/1-867     |                        |             |      |       |   |
| HN-CT203            | M7b        | 129 189 223 297                 | 73 150 199 263 309+C 315+C 489 524+AC 573+3C 750           | 16012-16569/1-852     |                        |             |      |       |   |
| HN-CT344            | M7b        | 129 189 223 297 360h 526        | 73 150 194 199 204 263 309+C 315+C 456 489 524+AC 750      | 16014-16569/1-911     |                        |             |      |       |   |
| HN-CT399            | M7b        | 129 189 223 297 360h 526        | 73 150 194 199 204 263 309+C 315+C 456 489 524+AC 750      | 16014-16569/1-911     |                        |             |      |       |   |
| HN-CT417            | M7b        | 129 223 297                     | 73 150 159 199 263 315+C 489 750                           | 16026-16569/1-921     |                        |             |      |       |   |
| HN-CT237            | M7b        | 129 223 297                     | 73 150 182 199 263 315+C 459d 489 750                      | 16016-16569/1-921     |                        |             |      |       |   |
| HN-CT446            | M7b        | 129 223 297                     | 73 150 199 263 309+C 315+C 489 750                         | 16056-16569/1-921     |                        |             |      |       |   |
| HN-CT30             | M7b        | 129 223 297 354                 | 73 150 159 199 263 309+C 315+C 489 750                     | 16059-16569/1-921     |                        |             |      |       |   |
| HN-CT10             | M7b        | 129 223 297 362G                | 73 150 199 263 315+C 489 750                               | 16033-16569/1-921     |                        |             |      |       |   |
| HN-CT539            | M7b        | 129 223 297 527                 | 73 150 199 263 291+A 309+C 315+C 489 750                   | 16011-16569/1-921     |                        |             |      |       |   |
| HN-CT248            | M7b        | 129 223 297 527                 | 73 150 199 263 309+C 315+C 489 750                         | 16009-16569/1-921     |                        |             |      |       |   |
| HN-CT307            | M7b        | 185 223 297 301                 | 73 150 199 204 263 309+C 315+C 489 750                     | 16042-16569/1-921     |                        |             |      |       |   |
| HN-CT619            | M7b        | 186 223 297                     | 73 150 199 204 263 309+C 315+C 489 750                     | 16011-16569/1-921     |                        |             |      |       |   |
| HN-CT494            | M7b        | 189h 223 297 327                | 73 150 199 204 263 309+C 315+C 489 750                     | 16060-16569/1-921     |                        |             |      |       |   |
| HN-CT718            | M7b        | 223 297                         | 73 150 152 199 204 263 271 309+C 315+C 489 750             | 16012-16569/1-921     |                        |             |      |       |   |
| HN-CT148            | M7b        | 223 297                         | 73 150 152 199 204 263 309+C 315+C 489 750                 | 16012-16569/1-921     |                        |             |      |       |   |
| HN-CT37             | M7b        | 223 297                         | 73 150 199 204 263 309+C 315+C 489 750                     | 16009-16569/1-921     |                        |             |      |       |   |
| HN-CT527            | M7b        | 223 297                         | 73 150 199 204 263 309+C 315+C 489 750                     | 16072-16569/1-921     |                        |             |      |       |   |
| HN-CT536            | M7b        | 223 297                         | 73 150 199 204 263 309+C 315+C 489 750                     | 16011-16569/1-910     |                        |             |      |       |   |
| HN-CT599            | M7b        | 223 297                         | 73 150 199 204 263 309+C 315+C 489 750                     | 16011-16569/1-915     |                        |             |      |       |   |
| HN-CT304            | M7b        | 223 297                         | 73 150 199 204 263 315+C 489 523-524d 750                  | 16033-16569/1-921     |                        |             |      |       |   |
| HN-CT341            | M7b        | 223 297                         | 73 150 199 204 263 315+C 489 750                           | 16077-16569/1-921     |                        |             |      |       |   |
| HN-CT280            | M7b        | 223 297 327 519                 | 73 150 199 204 263 315+C 489 750                           | 16013-16569/1-921     |                        |             |      |       |   |
| HNCT2-410           | M7b        | 129 223 297                     | 73 150 199 263 309+C 315+C 489 750                         | 16014-16569/1-836     |                        |             |      |       |   |
| HNCT2-449           | M7b        | 129 223 297 527                 | 73 150 199 263 309+C 315+C 489 750                         | 16014-16569/1-908     |                        |             |      |       |   |
| HNCT2-458           | M7b        | 129 192 223 297                 | 73 150 152 199 263 309+C 315+C 489 750                     | 16014-16569/1-806     |                        |             |      |       |   |
| HNCT2-482           | M7b        | 129 192 297                     | 73 150 199 263 309+C 315+C 489 750                         | 16013-16569/1-836     |                        |             |      |       |   |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup> | Region 2 <sup>b</sup>                                    | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281_8-289d | 8718 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|--------------------------------|--|-----------------------|------------------------|-------------|------|---------------------------------------|
| HNCT2-492           | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                       | 16014-16569/1-806     |                        |             |      |                                       |
| HNCT2-497           | M7b        | 129 189 192 223 297            | 73 150 199 263 315+C 489 750                             | 16014-16569/1-806     |                        |             |      |                                       |
| HNCT2-501           | M7b        | 129 183C 189 223 297 519       | 73 150 199 204 207 263 309+2C 315+C 456 489              | 16012-16569/1-747     |                        |             |      |                                       |
| HNCT2-503           | M7b        | 129 192 223 297                | 73 146 150 199 263 309+C 315+C 489 750                   | 16013-16569/1-873     |                        |             |      |                                       |
| HNCT2-512           | M7b        | 223 297                        | 73 150 199 204 263 309+C 315+C 489 750                   | 16013-16569/1-791     |                        |             |      |                                       |
| HNCT2-522           | M7b        | 172 223 297                    | 73 150 199 203 204 263 315+C 489 750                     | 16014-16569/1-806     |                        |             |      |                                       |
| HNCT2-570           | M7b        | 129 188 192 223 297 362 400    | 73 150 199 263 315+C 489 750                             | 16013-16569/1-836     |                        |             |      |                                       |
| HNCT2-577           | M7b        | 129 166 174 183C 189 223 297   | 73 150 199 204 263 309+C 315+C 489 750                   | 16013-16569/1-910     |                        |             |      |                                       |
| HNCT2-581           | M7b        | 129 223 297 362 400            | 73 150 199 263 309+C 315+C 489 750                       | 16013-16569/1-873     |                        |             |      |                                       |
| HNCT2-592           | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                       | 16013-16569/1-806     |                        |             |      |                                       |
| HNCT2-601           | M7b        | 129 192 223 234 297            | 73 150 199 263 315+C 489 750                             | 16013-16569/1-829     |                        |             |      |                                       |
| HNCT2-626           | M7b        | 223 297                        | 73 150 199 204 263 315+C 489 750                         | 16013-16569/1-873     |                        |             |      |                                       |
| HNCT2-630           | M7b        | 129 192 223 297                | 73 150 199 207 263 309+C 315+C 489 750                   | 16013-16569/1-873     |                        |             |      |                                       |
| HNCT2-632           | M7b        | 223 297                        | 73 150 199 204 263 309+C 315+C 489 750                   | 16013-16569/1-829     |                        |             |      |                                       |
| HNCT2-650           | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                       | 16013-16569/1-836     |                        |             |      |                                       |
| HNCT2-656           | M7b        | 129 192 223 297 519            | 73 150 199 263 309+C 315+C 489 750                       | 16013-16569/1-806     |                        |             |      |                                       |
| HNCT2-673           | M7b        | 129 148 192 223 297            | 73 150 199 263 309+2C 315+C 489 750                      | 16013-16569/1-806     |                        |             |      |                                       |
| HNCT2-683           | M7b        | 129 189 223 297                | 73 150 199 204 263 309+C 315+C 456 489 750               | 16013-16569/1-806     |                        |             |      |                                       |
| HNCT2-685           | M7b        | 129 223 248 292 297            | 73 150 199 204 207 263 315+C 489 750                     | 16013-16569/1-836     |                        |             |      |                                       |
| HN-CT34             | M7b        | 129 188 189 192 223 297        | 73 146 150 199 263 309+C 315+C 489 507 508C 523-524d 750 | 16016-16569/1-911     |                        |             |      |                                       |
| HN-CT472            | M7b        | 129 189 192 223 297            | 73 150 199 204 207 263 309+C 315+C 489 750               | 16013-16569/1-911     |                        |             |      |                                       |
| HN-CT576            | M7b        | 129 189 192 223 297            | 73 150 199 263 309+C 315+C 489 750                       | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT320            | M7b        | 129 192 223 243 297            | 73 150 199 263 309+C 315+C 489 750                       | 16008-16569/1-911     |                        |             |      |                                       |
| HN-CT56             | M7b        | 129 192 223 295 297            | 73 150 182 199 263 315+C 459d 489 750                    | 16082-16569/1-921     |                        |             |      |                                       |
| HN-CT305            | M7b        | 129 192 223 297                | 64 73 150 199 263 309+2C 315+C 489 750                   | 16042-16569/1-921     |                        |             |      |                                       |
| HN-CT179            | M7b        | 129 192 223 297                | 73 150 152 263 309+C 315+C 408A 489 750                  | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT201            | M7b        | 129 192 223 297                | 73 150 182 199 263 315+C 459d 489 750                    | 16014-16569/1-921     |                        |             |      |                                       |
| HN-CT540            | M7b        | 129 192 223 297                | 73 150 182 199 263 315+C 459d 489 750                    | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT300            | M7b        | 129 192 223 297                | 73 150 194d 199 263 309+2C 315+C 489 750                 | 16063-16569/1-921     |                        |             |      |                                       |
| HN-CT190            | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                       | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT222            | M7b        | 129 192 223 297                | 73 150 199 263 309+2C 315+C 489 750                      | 16008-16569/1-921     |                        |             |      |                                       |
| HN-CT604            | M7b        | 129 192 223 297                | 73 150 199 263 309+2C 315+C 489 750                      | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT588            | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                       | 16012-16569/1-911     |                        |             |      |                                       |
| HN-CT14             | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                       | 16040-16569/1-921     |                        |             |      |                                       |
| HN-CT21             | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                       | 16060-16569/1-921     |                        |             |      |                                       |
| HN-CT70             | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                       | 16018-16569/1-911     |                        |             |      |                                       |
| HN-CT91             | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                       | 16082-16569/1-921     |                        |             |      |                                       |
| HN-CT240            | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                       | 16017-16569/1-921     |                        |             |      |                                       |
| HN-CT434            | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                       | 16014-16569/1-921     |                        |             |      |                                       |
| HN-CT457            | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                       | 16059-16569/1-921     |                        |             |      |                                       |
| HN-CT579            | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                       | 16013-16569/1-909     |                        |             |      |                                       |
| HN-CT139            | M7b        | 129 192 223 297                | 73 150 199 263 315+C 408A 489 750                        | 16089-16569/1-921     |                        |             |      |                                       |
| HN-CT422            | M7b        | 129 192 223 297                | 73 150 199 263 315+C 489 524+AC 750                      | 16037-16569/1-920     |                        |             |      |                                       |
| HN-CT72             | M7b        | 129 192 223 297                | 73 150 199 263 315+C 489 750                             | 16027-16569/1-921     |                        |             |      |                                       |
| HN-CT132            | M7b        | 129 192 223 297                | 73 150 199 263 315+C 489 750                             | 16065-16569/1-911     |                        |             |      |                                       |
| HN-CT370            | M7b        | 129 192 223 297                | 73 150 199 263 315+C 489 750                             | 16016-16569/1-921     |                        |             |      |                                       |
| HN-CT555            | M7b        | 129 192 223 297                | 73 150 199 263 315+C 489 750                             | 16047-16569/1-833     |                        |             |      |                                       |
| HN-CT589            | M7b        | 129 192 223 297                | 73 150 199 263 315+C 489 750                             | 16012-16569/1-911     |                        |             |      |                                       |
| HN-CT622            | M7b        | 129 192 223 297                | 73 150 199 263 315+C 489 750                             | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT679            | M7b        | 129 192 223 297                | 73 150 199 263 315+C 489 750                             | 16011-16569/1-921     |                        |             |      |                                       |
| HN-CT627            | M7b        | 129 192 223 297 360            | 73 150 159 199 263 309+2C 315+C 489 750                  | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT117            | M7b        | 129 192 223 297 519            | 73 150 199 263 309+C 315+C 489 750                       | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT218            | M7b        | 129 192 223 297 527            | 73 150 199 263 309+C 315+C 489 750                       | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT550            | M7b        | 129 189 223 297 298            | 73 150 199 263 309+C 315+C 489 750                       | 16042-16569/1-911     |                        |             |      |                                       |
| HN-CT695            | M7b        | 129 189 223 297 298 319        | 73 146 150 199 263 315+C 489 524+AC 750                  | 16011-16569/1-921     |                        |             |      |                                       |
| HN-CT45             | M7c        | 223 319 468 519                | 73 146 199 263 315+C 489 523-524d 750                    | 16056-16569/1-921     |                        |             |      |                                       |
| HN-CT483            | M7c        | 223 519                        | 73 143 146 152 189 199 263 315+C 489 523-524d 750        | 16040-16569/1-921     |                        |             |      |                                       |
| HN-CT200            | M7c        | 075 223 293T 519               | 73 146 152 199 263 309+C 315+C 489 519 523-524d 750      | 16013-16569/1-921     |                        |             |      |                                       |
| HNCT2-406           | M7c        | 295 319 519                    | 73 146 199 263 315+C 489 523-524d 750                    | 16012-16569/1-829     |                        |             |      |                                       |
| HNCT2-414           | M7c        | 519                            | 73 146A 199 204 263 309+C 315+C 489 523-524d 750         | 16014-16569/1-908     |                        |             |      |                                       |
| HNCT2-440           | M7c        | 223 295 519                    | 73 146 152 263 309+C 315+C 489 523-524d 750              | 16014-16569/1-806     |                        |             |      |                                       |
| HNCT2-539           | M7c        | 223 286 295 519                | 73 146 152 199 204 263 309+C 315+C 489 523-524d 750      | 16013-16569/1-873     |                        |             |      |                                       |
| HNCT2-654           | M7c        | 223 519                        | 73 146 199 263 309+C 315+C 489 523-524d 750              | 16013-16569/1-806     |                        |             |      |                                       |
| HNCT2-671           | M7c        | 223 295 519                    | 73 146 199 263 309+C 315+C 489 523-524d 750              | 16013-16569/1-865     |                        |             |      |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>                  | Region 2 <sup>b</sup>                                | Coverage <sup>c</sup> | 5176 A/G <sup>d</sup> | 8281-8-289d | 8718 | 12406 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|---|--|-----------------------|-----------------------|-------------|------|-------|---------------------------------------|
| HNCT2-681           | M7c        | 343 519   | 73 146A 199 263 309+C 315+C 489 523-524d 750         | 16001-16569/1-806     |                       |             |      |       |                                       |
| HN-CT635            | M7c        | 111 183C 189 223 295 519                        | 73 146 199 263 309+2C 315+C 489 523-524d 750         | 16032-16569/1-911     |                       |             |      |       |                                       |
| HN-CT703            | M7c        | 136 295 319 519                                 | 73 146 199 263 309+C 315+C 489 523-524d 750          | 16012-16569/1-921     |                       |             |      |       |                                       |
| HN-CT645            | M7c        | 157 223 295 519                                 | 73 146 199 263 309+C 315+C 489 523-524d 750 789      | 16013-16569/1-921     |                       |             |      |       |                                       |
| HN-CT572            | M7c        | 209 223 295 519                                 | 73 146 152 199 263 315+C 489 523-524d 750            | 16012-16569/1-911     |                       |             |      |       |                                       |
| HN-CT31             | M7c        | 213 223 295 519                                 | 73 146 199 263 309+C 315+C 489 523-524d 750          | 16010-16569/1-921     |                       |             |      |       |                                       |
| HN-CT704            | M7c        | 223 263 287 295 519                             | 73 146 152 199 263 315+C 489 523-524d 750            | 16013-16569/1-921     |                       |             |      |       |                                       |
| HN-CT78             | M7c        | 223 278 291 295 519                             | 73 146 199 263 309+C 315+C 489 523-524d 750          | 16032-16569/1-775     |                       |             |      |       |                                       |
| HN-CT400            | M7c        | 223 286 295 519                                 | 73 146 152 199 204 263 309+C 315+C 489 523-524d 750  | 16013-16569/1-911     |                       |             |      |       |                                       |
| HN-CT277            | M7c        | 223 293T 295 519                                | 72 73 146 199 263 309+C 315+C 489 523-524d 750       | 16012-16569/1-899     |                       |             |      |       |                                       |
| HN-CT529            | M7c        | 223 295 304 519                                 | 73 146 199 263 309+C 315+C 456 489 523-524d 750      | 16032-16569/1-908     |                       |             |      |       |                                       |
| HN-CT270            | M7c        | 295 319 519                                     | 73 146 199 263 315+C 489 523-524d 593 750            | 16033-16569/1-921     |                       |             |      |       |                                       |
| HN-CT454            | M7c        | 071 223 295 519                                 | 73 146 152 199 234 263 315+C 489 523-524d 738h 750   | 16043-16569/1-921     |                       |             |      |       |                                       |
| HN-CT365            | M7c        | 086 172 187 223 295 519                         | 73 146 199 263 315+C 489 523-524d 750                | 16033-16569/1-921     |                       |             |      |       |                                       |
| HN-CT186            | M7c        | 093 207 223 295 519                             | 73 146 199 263 309+C 315+C 489 523-524d 750          | 16032-16569/1-921     |                       |             |      |       |                                       |
| HN-CT121            | M7c        | 223 295 319 343 519                             | 73 146 199 263 309+C 315+C 455d 489 513 523-524d 750 | 16023-16569/1-921     |                       |             |      |       |                                       |
| HN-CT324            | M7c        | 519   | 73 146A 199 204 263 309+C 315+C 489 523-524d 750     | 16087-16569/1-921     |                       |             |      |       |                                       |
| HN-CT660            | M7c        | 181 519   | 73 146A 199 263 309+C 315+C 489 523-524d 750         | 16033-16569/1-921     |                       |             |      |       |                                       |
| HN-CT715            | M7c        | 051 093 189 274 519                             | 73 146A 199 263 309+2C 315+C 489 523-524d 750        | 16013-16569/1-921     |                       |             |      |       |                                       |
| HN-CT137            | M7c        | 150h 173 223 295 362 519                        | 73 146 199 263 315+C 489 523-524d 750                | 16077-16569/1-921     |                       |             |      |       |                                       |
| HN-CT168            | M7c        | 172 223 311 519                                 | 73 146 263 315+C 489 523-524d 750                    | 16012-16569/1-911     |                       |             |      |       |                                       |
| HN-CT709            | M7c        | 172 223 311 519                                 | 73 93 146 263 315+C 489 523-524d 750                 | 16013-16569/1-921     |                       |             |      |       |                                       |
| HNCT2-659           | M7c        | 172 223 274 291 311 519                         | 73 146 263 315+C 489 523-524d 750                    | 16013-16569/1-806     |                       |             |      |       |                                       |
| HNCT2-461           | M8a        | 184 189 223 298 319 470 471 473                 | 73 263 309+C 315+C 489 750                           | 16013-16569/1-783     |                       |             |      |       |                                       |
| HNCT2-479           | M8a        | 184 223 298 319                                 | 73 263 315+C 489 750                                 | 16014-16569/1-806     |                       |             |      |       |                                       |
| HNCT2-595           | M8a        | 134 184 223 298 319 519                         | 73 263 309+C 315+C 489 750                           | 16013-16569/1-869     |                       |             |      |       |                                       |
| HNCT2-611           | M8a        | 138T 184 223 298 319                            | 73 152 263 309+C 315+C 489 750                       | 16013-16569/1-836     |                       |             |      |       |                                       |
| HN-CT701            | M8a        | 129 134 184 223 298 319                         | 73 263 309+C 315+C 489                               | 16012-16569/1-670     |                       |             |      |       |                                       |
| HN-CT671            | M8a        | 134 184 223 298 319                             | 73 263 309+C 315+C 450 489 750                       | 16012-16569/1-921     |                       |             |      |       |                                       |
| HN-CT287            | M8a        | 134 184 223 298 319                             | 73 263 309+C 315+C 489 750                           | 16012-16569/1-921     |                       |             |      |       |                                       |
| HN-CT644            | M8a        | 134 184 223 298 319                             | 73 263 309+C 315+C 489 750                           | 16013-16569/1-880     |                       |             |      |       |                                       |
| HN-CT675            | M8a        | 134 184 223 298 319                             | 73 263 309+C 315+C 489 750                           | 16013-16569/1-921     |                       |             |      |       |                                       |
| HN-CT127            | M8a        | 134 184 298 319                                 | 73 183 263 309+C 315+C 489 750                       | 16058-16569/1-921     |                       |             |      |       |                                       |
| HN-CT331            | M8a        | 145 184 223 298 319                             | 73 263 309+C 315+C 489 750                           | 16009-16569/1-921     |                       |             |      |       |                                       |
| HN-CT458            | M8a        | 184 209 223 240C 298 311 319                    | 73 263 309+C 315+C 489 523-524d 750                  | 16047-16569/1-782     |                       |             |      |       |                                       |
| HN-CT592            | M8a        | 184 223 274 298                                 | 73 152 204 263 309+C 315+C 489 750                   | 16012-16569/1-911     |                       |             |      |       |                                       |
| HN-CT216            | M8a        | 184 223 293 298 311 319                         | 73 152 263 315+C 489 709 750                         | 16012-16569/1-921     |                       |             |      |       |                                       |
| HN-CT412            | M8a        | 184 223 293 298 319                             | 73 152 263 309+2C 315+C 489 750                      | 16024-16569/1-921     |                       |             |      |       |                                       |
| HN-CT432            | M8a        | 184 223 293 298 319                             | 73 152 263 309+C 315+C 489 750                       | 16013-16569/1-911     |                       |             |      |       |                                       |
| HN-CT326            | M8a        | 184 223 293 298 319                             | 73 263 315+C 489 709 750                             | 16013-16569/1-911     |                       |             |      |       |                                       |
| HN-CT82             | M8a        | 184 223 293C 298 319 519                        | 73 151 152 263 309+C 315+C 489 750                   | 16082-16569/1-921     |                       |             |      |       |                                       |
| HN-CT93             | M8a        | 184 223 298 319                                 | 73 152 263 309+C 315+C 489 750                       | 16043-16569/1-921     |                       |             |      |       |                                       |
| HN-CT441            | M8a        | 184 223 298 319                                 | 73 152 263 309+C 315+C 489 750                       | 16027-16569/1-921     |                       |             |      |       |                                       |
| HN-CT163            | M8a        | 184 223 298 319                                 | 73 234 263 309+C 315+C 489 750                       | 16013-16569/1-921     |                       |             |      |       |                                       |
| HN-CT573            | M8a        | 184 223 298 319 362 519                         | 73 152 263 309+C 315+C 489 750                       | 16013-16569/1-911     |                       |             |      |       |                                       |
| HN-CT189            | M8a        | 067 134 184 223 298 319                         | 73 263 309+C 315+C 489 750                           | 16032-16569/1-921     |                       |             |      |       |                                       |
| HN-CT97             | M8a        | 093 184 223 293 298 319                         | 73 152 263 309+C 315+C 489 750                       | 16082-16569/1-921     |                       |             |      |       |                                       |
| HN-CT452            | M8a        | 129 184 185 189 223 298 319 470 471 473         | 73 195 257 263 309+C 315+C 489 750                   | 16047-16569/1-895     |                       |             |      |       |                                       |
| HN-CT690            | M8a        | 184 189 223 259 298 319 470 471 473             | 73 152 263 309+2C 315+C 489 750                      | 16012-16569/1-921     |                       |             |      |       |                                       |
| HN-CT482            | M8a        | 184 189 223 278 298 319 470 471 473             | 73 152 263 309+C 315+C 489 499 750                   | 16055-16569/1-921     |                       |             |      |       |                                       |
| HN-CT371            | M8a        | 184 189 223 298 311 319 327 390 468 470 471 473 | 73 263 266 309+C 315+C 489 750                       | 16055-16569/1-921     |                       |             |      |       |                                       |
| HN-CT164            | M8a        | 184 189 223 298 311 319 438 470 471 473         | 73 189 263 309+C 315+C 489 750                       | 16032-16569/1-921     |                       |             |      |       |                                       |
| HN-CT194            | M8a        | 184 189 223 298 311 319 438 470 471 473         | 73 189 263 309+C 315+C 489 750                       | 16049-16569/1-921     |                       |             |      |       |                                       |
| HN-CT543            | M8a        | 184 189 223 298 319 438 470 471 473             | 73 189 263 309+2C 315+C 489 750                      | 16013-16569/1-921     |                       |             |      |       |                                       |
| HN-CT663            | M8a        | 184 189 223 298 319 468 470 471 473 476         | 73 207 263 315+C 489 750                             | 16013-16569/1-921     |                       |             |      |       |                                       |
| HN-CT450            | M8a        | 184 189 223 298 319 470 471 473 476             | 73 263 309+2C 315+C 489 750                          | 16055-16569/1-921     |                       |             |      |       |                                       |
| HNCT2-401           | M9a        | 223 234 294 311 316 362 526                     | 73 153 263 315+C 489 750                             | 16014-16569/1-806     |                       |             |      |       |                                       |
| HNCT2-502           | M9a        | 129 192 223 234 362                             | 73 153 195 263 315+C 489 750                         | 16013-16569/1-836     |                       |             |      |       |                                       |
| HNCT2-508           | M9a        | 223 234 240 362                                 | 73 153 263 309+C 315+C 489 750                       | 16014-16569/1-908     |                       |             |      |       |                                       |
| HNCT2-541           | M9a        | 223 234 291 316 362                             | 73 152 153 263 315+C 489 750                         | 16013-16569/1-836     |                       |             |      |       |                                       |
| HNCT2-631           | M9a        | 223 234 240 362                                 | 73 153 263 309+C 315+C 489 750                       | 16013-16569/1-873     |                       |             |      |       |                                       |
| HNCT2-669           | M9a        | 092 223 234 291 316 362                         | 73 153 263 309+C 315+C 456 489 750                   | 16013-16569/1-908     |                       |             |      |       |                                       |
| HNCT2-682           | M9a        | 223 224 234 316 362                             | 73 152 263 279 309+C 315+C 489 750                   | 16013-16569/1-873     |                       |             |      |       |                                       |
| HN-CT668            | M9a        | 145 223 234 243 316                             | 73 153 263 309+C 315+C 489 750                       | 16013-16569/1-921     |                       |             |      |       |                                       |
| HN-CT143            | M9a        | 223 224 234 311 316 362                         | 73 152 153 263 309+2C 315+C 489 750                  | 16017-16569/1-921     |                       |             |      |       |                                       |
| HN-CT666            | M9a        | 223 234 248 265C 316 362                        | 73 153 263 309+C 315+C 489 750                       | 16012-16569/1-921     |                       |             |      |       |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>            | Region 2 <sup>b</sup>                             | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281_8-289d | 8718 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|---|---|-----------------------|------------------------|-------------|------|---------------------------------------|
| HN-CT293            | M9a        | 223 234 257 300 316 362                   | 73 153 263 315+C 489 750                          | 16060-16569/1-898     |                        |             |      |                                       |
| HN-CT524            | M9a        | 223 234 291 316 362                       | 73 153 263 309+C 315+C 489 524+AC 750             | 16037-16569/1-921     |                        |             |      |                                       |
| HN-CT600            | M9a        | 223 234 291 316 362                       | 73 153 263 309+C 315+C 489 524+AC 750             | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT60             | M9a        | 223 234 291 316 362                       | 73 153 263 315+C 489 750                          | 16044-16569/1-921     |                        |             |      |                                       |
| HN-CT514            | M9a        | 223 234 300 316 362                       | 73 146 153 263 309+C 315+C 489 750                | 16043-16569/1-921     |                        |             |      |                                       |
| HN-CT154            | M9a        | 223 234 316 362                           | 73 152 153 263 309+C 315+C 489 750                | 16055-16569/1-921     |                        |             |      |                                       |
| HN-CT511            | M9a        | 223 234 316 362 526                       | 73 153 263 309+2C 315+C 489 750                   | 16033-16569/1-921     |                        |             |      |                                       |
| HN-CT439            | M9a        | 223 234 316 362 526                       | 73 153 263 315+C 489 750                          | 16055-16569/1-921     |                        |             |      |                                       |
| HN-CT259            | M9a        | 092 223 234 316 362 519                   | 73 153 186 249 263 309+C 315+C 489 750            | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT122            | M9a        | 093 223 234 248 265T 316 362              | 73 153 263 309+C 315+C 437 489 750                | 16080-16569/1-921     |                        |             |      |                                       |
| HN-CT157            | M9b        | 051 209 223 362 519                       | 73 153 263 315+C 489 573+4C 709 750               | 16016-16569/1-871     |                        |             |      |                                       |
| HN-CT620            | N10        | 111 172 183C 189 223 362 519              | 73 185 189 195 234 263 309+C 315+C 523-524d       | 16042-16569/1-898     |                        |             |      |                                       |
| HN-CT267            | N9a        | 129 223 257A 261                          | 73 150 263 309+C 315+C 750                        | 16055-16569/1-921     |                        |             |      |                                       |
| HN-CT282            | N9a        | 129 223 257A 261                          | 73 150 263 315+C 513 523-524d 750                 | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT476            | N9a        | 129 223 257A 261 291A                     | 73 150 263 309+C 315+C 750                        | 16013-16569/1-911     |                        |             |      |                                       |
| HN-CT302            | N9a        | 172 223 257A 261                          | 73 150 263 309+C 315+C 750                        | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT677            | N9a        | 172 223 257A 261 519                      | 73 150 263 309+2C 315+C 523-524d 750              | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT378            | N9a        | 172 223 257A 261 519                      | 73 150 263 309+C 315+C 750                        | 16012-16569/1-911     |                        |             |      |                                       |
| HN-CT676            | N9a        | 183C 189 192 223 257A 261                 | 73 143 150 263 315+C 750                          | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT174            | N9a        | 183C 189 223 257A 261 311                 | 73 143 150 263 315+C 750                          | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT325            | N9a        | 223 257A 261                              | 73 150 185 263 309+C 315+C 750                    | 16056-16569/1-921     |                        |             |      |                                       |
| HN-CT339            | N9a        | 223 257A 261                              | 73 150 263 309+2C 315+C 750                       | 16090-16569/1-921     |                        |             |      |                                       |
| HN-CT414            | N9a        | 223 257A 261                              | 73 150 263 309+C 315+C 750                        | 16009-16569/1-911     |                        |             |      |                                       |
| HN-CT133            | N9a        | 223 257A 261                              | 73 150 263 315+C 750                              | 16022-16569/1-921     |                        |             |      |                                       |
| HN-CT473            | N9a        | 223 257A 261                              | 73 150 263 315+C 750                              | 16010-16569/1-911     |                        |             |      |                                       |
| HN-CT246            | N9a        | 223 257A 261 299 477                      | 73 146 150 195 263 309+C 315+C 750                | 16032-16569/1-921     |                        |             |      |                                       |
| HN-CT109            | N9a        | 080 223 257A 278 519                      | 73 150 263 309+C 315+C 750                        | 16017-16569/1-921     |                        |             |      |                                       |
| HNCT2-407           | N9a        | 183C 189 223 257A 261                     | 73 150 263 309+2C 315+C 750                       | 16013-16569/1-806     |                        |             |      |                                       |
| HNCT2-418           | N9a        | 223 257A 261                              | 73 150 203 204 263 309+C 315+C 750                | 16014-16569/1-806     |                        |             |      |                                       |
| HNCT2-433           | N9a        | 183C 189 223 257A 261                     | 73 150 263 309+2C 315+C 750                       | 16014-16569/1-791     |                        |             |      |                                       |
| HNCT2-513           | N9a        | 223 257A 261 292 362 519                  | 73 150 263 309+C 315+C 750                        | 16013-16569/1-836     |                        |             |      |                                       |
| HNCT2-521           | N9a        | 092 145 172 173 223 245 257A 261 319      | 73 150 263 309+C 315+C 524+2AC 750                | 16013-16569/1-836     |                        |             |      |                                       |
| HNCT2-639           | N9a        | 111 129 223 257A 261                      | 73 150 263 309+C 315+C                            | 16013-16569/1-575     |                        |             |      |                                       |
| HNCT2-647           | N9a        | 111 129 171 223 257A 261 298 519          | 73 150 195 263 309+C 315+C 750                    | 16013-16569/1-806     |                        |             |      |                                       |
| HNCT2-663           | N9a        | 145 172 223 245 257A 261                  | 73 150 263 309+C 315+C 524+2AC 750                | 16013-16569/1-806     |                        |             |      |                                       |
| HNCT2-665           | N9a        | 092 145 172 223 245 257A 261              | 73 150 263 309+C 315+C 524+2AC 750                | 16013-16569/1-814     |                        |             |      |                                       |
| HNCT2-674           | N9a        | 129 223 248 257A 261                      | 73 150 263 315+C 504 750                          | 16013-16569/1-826     |                        |             |      |                                       |
| HNCT2-678           | N9a        | 093 223 257A 519                          | 73 150 152 263 309+C 315+C 750                    | 16013-16569/1-836     |                        |             |      | 12060-12770=12358 12372 12706         |
| HN-CT29             | N9a        | 111 129 223 257A 261                      | 73 150 263 309+2C 315+C 750                       | 16017-16569/1-921     |                        |             |      |                                       |
| HN-CT653            | N9a        | 111 129 223 257A 261                      | 73 150 263 309+C 315-C 745 750                    | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT234            | N9a        | 111 129 223 257A 261 304                  | 73 150 251 263 315+C 750                          | 16063-16569/1-921     |                        |             |      |                                       |
| HN-CT236            | N9a        | 111 129 223 257A 261 390                  | 73 150 263 309+2C 315+C 750                       | 16032-16569/1-921     |                        |             |      |                                       |
| HN-CT571            | N9a        | 094 111 129 189 223 257A 261 265T 274 519 | 73 150 263 315+C 750                              | 16013-16569/1-911     |                        |             |      |                                       |
| HN-CT521            | R11        | 183C 189 311 365 519                      | 73 152 185 189 194 263 315+C 709 750              | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT595            | R11        | 183C 189 311 365 519                      | 73 152 185 189 194 263 315+C 709 750              | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT250            | R11        | 093 182C 183C 189 311 390 519             | 64 73 185 189 263 315+C 709 750                   | 16033-16569/1-921     |                        |             |      |                                       |
| HN-CT654            | R9*        | 304 519                                   | 73 195 263 315+C 750                              | 16013-16569/1-911     |                        |             |      |                                       |
| HNCT2-439           | R9*        | 157 304 324                               | 73 151 263 309+C 315+C 479 750                    | 16014-16569/1-806     |                        |             |      | 3670-4400=3970                        |
| HNCT2-415           | R9b        | 145 192 243 304 390 519                   | 73 183 263 315+C 523-524d 593 750                 | 16014-16569/1-806     |                        |             |      |                                       |
| HNCT2-465           | R9b        | 189 287A 288 304 309 390 519              | 73 143 183 263 309+C 315+C 479 523-524d 573+3C    | 16013-16569/1-573     |                        |             |      |                                       |
| HNCT2-635           | R9b        | 304 309 390 519                           | 73 263 315+C 523-524d 750                         | 16013-16569/1-873     |                        |             |      |                                       |
| HN-CT705            | R9b        | 145 192 243 304 309 390 519               | 73 183 263 309+C 315+C 523-524d 750               | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT633            | R9b        | 145 192 243 304 309 390 519               | 73 183 263 315+C 523-524d 750                     | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT430            | R9b        | 167 189 192 288 304 309 390 519           | 73 143 183 204 263 309+C 315+C 523-524d 573+C 750 | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT264            | R9b        | 189 192 304 309 390 519                   | 73 263 309+C 315+C 523-524d 750                   | 16091-16569/1-795     | -                      |             |      | 7905-8660=rCRS                        |
| HN-CT549            | R9b        | 192 304 309 390 519                       | 73 152 263 309+2C 315+C 523-524d 750              | 16042-16569/1-921     |                        |             |      |                                       |
| HN-CT219            | R9b        | 192 304 309 390 519                       | 73 183 204 263 315+C 523-524d 750                 | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT474            | R9b        | 093 192 304 309 390 519                   | 73 152 263 309+C 315+C 523-524d 750               | 16013-16569/1-911     |                        |             |      |                                       |
| HN-CT36             | R9b        | 263 304 362 519                           | 73 263 315+C 750                                  | 16009-16569/1-921     |                        |             |      |                                       |
| HNCT2-579           | T2c        | 129 292 294 296 519 527                   | 73 263 309+C 315+C 709 750                        | 16013-16569/1-806     |                        |             |      |                                       |
| HN-CT243            | U4         | 356 519                                   | 73 195 263 309+C 315+C 499 750                    | 16013-16569/1-921     | C G                    |             |      | 7900-8650=rCRS                        |
| HN-CT210            | Y          | 126 176 231 266 399 519                   | 73 146 263 309+C 315+C 750                        | 16012-16569/1-921     |                        |             |      |                                       |
| HN-CT373            | Y          | 126 176 231 266 399 519                   | 73 146 263 309+C 315+C 750                        | 16032-16569/1-921     |                        |             |      |                                       |
| HN-CT552            | Y          | 231 519                                   | 73 146 263 309+C 315+C 750                        | 16013-16569/1-921     |                        |             |      |                                       |
| HN-CT167            | Y          | 093 126 231 266 519                       | 73 146 207 263 309+C 315+C 524+ACh 750            | 16091-16569/1-863     |                        |             |      |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>            | Region 2 <sup>b</sup>                               | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281-8-289d | 8718 | 12406 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|---|---|-----------------------|------------------------|-------------|------|-------|---------------------------------------|
| HNCT2-516           | Y          | 231 519                                   | 73 146 263 309+C 315+C 750                          | 16013-16569/1-873     |                        |             |      |       |                                       |
| HN-CT486            | Z          | 124 185 223 260 298 519                   | 73 151 152 249d 263 309+C 315+C 489 750             | 16087-16569/1-921     |                        |             |      |       |                                       |
| HN-CT557            | Z          | 129 185 223 260 298                       | 73 151 152 249d 263 315+C 489 750                   | 16013-16569/1-921     |                        |             |      |       |                                       |
| HN-CT586            | Z          | 129 185 223 260 298                       | 73 151 152 249d 263 315+C 489 750                   | 16012-16569/1-911     |                        |             |      |       |                                       |
| HN-CT498            | Z          | 136 185 223 260 298                       | 73 150 152 249d 263 309+C 315+C 489 750             | 16027-16569/1-921     |                        |             |      |       |                                       |
| HN-CT687            | Z          | 136 185 223 260 298 519                   | 73 152 249d 263 309+C 315+C 489 573+3C 750          | 16013-16569/1-852     |                        |             |      |       |                                       |
| HN-CT119            | Z          | 136 223 260 298 527                       | 73 152 249d 263 309+C 315+C 489 750                 | 16067-16569/1-921     |                        |             |      |       |                                       |
| HN-CT442            | Z          | 172 185 223 260 298 362                   | 73 151 152 249d 263 309+C 315+C 489 750             | 16037-16569/1-921     |                        |             |      |       |                                       |
| HN-CT64             | Z          | 185 189d 223 260 298 302                  | 73 151 152 249d 263 309+C 315+C 489 750             | 16040-16569/1-921     |                        |             |      |       |                                       |
| HN-CT361            | Z          | 185 189d 223 260 298 380                  | 73 152 249d 263 309+C 315+C 489 750                 | 16013-16569/1-921     |                        |             |      |       |                                       |
| HN-CT609            | Z          | 185 223 260 298                           | 73 152 207 249d 263 315+C 489 750                   | 16012-16569/1-921     |                        |             |      |       |                                       |
| HN-CT256            | Z          | 185 223 260 298                           | 73 151 152 249d 263 315+C 489 750                   | 16043-16569/1-795     |                        |             |      |       |                                       |
| HN-CT611            | Z          | 185 223 260 298 302                       | 73 151 152 249d 263 309+C 315+C 489 750             | 16013-16569/1-921     |                        |             |      |       |                                       |
| HN-CT696            | Z          | 185 223 260 298 302                       | 73 151 152 249d 263 309+C 315+C 489 750             | 16012-16569/1-921     |                        |             |      |       |                                       |
| HN-CT158            | Z          | 185 223 260 298 302                       | 73 151 152 249d 263 315+C 489 573+3C 750            | 16090-16569/1-871     |                        |             |      |       |                                       |
| HN-CT191            | Z          | 185 223 260 298 400                       | 73 152 249d 263 309+C 315+C 489 523-524d 750        | 16034-16569/1-921     |                        |             |      |       |                                       |
| HN-CT395            | Z          | 185 223 260 298 519                       | 73 152 249d 263 309+C 315+C 383 489 709 750         | 16044-16569/1-921     |                        |             |      |       |                                       |
| HN-CT126            | Z          | 209 223 260 298 519                       | 73 151 152 249d 263 309+C 315+C 489 750             | 16037-16569/1-921     |                        |             |      |       |                                       |
| HN-CT141            | Z          | 081-A 185 189d 223 260 298 380            | 73 152 207 249d 263 309+C 315+C 489 750             | 16063-16569/1-870     |                        |             |      |       |                                       |
| HN-CT228            | Z          | 093 185 189 209 223 260 298               | 73 143 152 249d 263 315+C 489 750                   | 16041-16569/1-921     |                        |             |      |       |                                       |
| HNCT2-403           | Z          | 185 189 223 224 234A 260 261 298 302      | 73 152 249d 263 315+C 489 750                       | 16013-16569/1-783     |                        |             |      |       |                                       |
| HNCT2-434           | Z          | 136 185 223 260 298 302 519               | 73 152 249d 263 315+C 489 750                       | 16014-16569/1-806     |                        |             |      |       |                                       |
| HNCT2-438           | Z          | 038 104 223 241T 260 298                  | 73 152 234 249d 263 315+C 489 709 750               | 16014-16569/1-829     |                        |             |      |       |                                       |
| HNCT2-456           | Z          | 185 223 260 298 311                       | 73 152 194 249d 263 309+C 315+C 489 523-524d 750    | 16013-16569/1-836     |                        |             |      |       |                                       |
| HNCT2-538           | Z          | 185 223 260 278                           | 73 152 214 249d 263 309+2C 315+C 489 709 750        | 16013-16569/1-806     |                        |             |      |       |                                       |
| HNCT2-569           | Z          | 185 223 260 298 302                       | 73 152 153 249d 263 309+C 315+C 489 750             | 16013-16569/1-836     |                        |             |      |       |                                       |
| HNSZ2-407           | A          | 075 184 189 223 290 319 362               | 73 152 235 263 309+C 315+C 523-524d 663 750         | 16013-16569/1-836     |                        |             |      |       |                                       |
| HNSZ2-438           | A          | 092 094h 223 290 319 362                  | 73 152 235 263 309+C 315+C 663 750                  | 16013-16569/1-806     |                        |             |      |       |                                       |
| HNSZ2-445           | A          | 223 284 290 319 362                       | 73 152 153 235 263 315+C 523-524d 663 750           | 16013-16569/1-836     |                        |             |      |       |                                       |
| HNSZ2-451           | A          | 223 290 293C 319 519                      | 73 152 235 263 309+C 315+C 523-524d 663 750         | 16013-16569/1-806     |                        |             |      |       |                                       |
| HNSZ2-462           | A          | 196 223 290 311 319 362                   | 73 152 235 263 309+C 315+C 523-524d 663 750         | 16013-16569/1-872     |                        |             |      |       |                                       |
| HNSZ2-464           | A          | 223 290 293C 319 519                      | 73 152 263 315+C 523-524d 663 750                   | 16013-16569/1-836     |                        |             |      |       |                                       |
| HNSZ2-489           | A          | 223 290 319 344 362                       | 73 146 152 235 263 309+C 315+C 523-524d 654 663 750 | 16013-16569/1-836     |                        |             |      |       |                                       |
| HNSZ2-493           | A          | 189 223 290 293C 319 519                  | 73 152 235 263 315+C 523-524d 650 663 750           | 16013-16569/1-836     |                        |             |      |       |                                       |
| HNSZ2-496           | A          | 192 207 223 290 319 362                   | 73 152 207 235 309+C 315+C 523-524d 663 750         | 16013-16569/1-826     |                        |             |      |       |                                       |
| HNSZ2-521           | A          | 223 274 290 319 362 519 527               | 73 152 235 263 315+C 523-524d 663 750               | 16013-16569/1-806     |                        |             |      |       |                                       |
| HNSZ2-522           | A          | 223 290 319                               | 64 73 146 151 235 263 315+C 466 523-524d 663 750    | 16013-16569/1-836     |                        |             |      |       |                                       |
| HNSZ2-532           | A          | 223 290 319 362                           | 73 152 204 207 235 309+C 315+C 523-524d 663 750     | 16013-16569/1-760     |                        |             |      |       |                                       |
| HNSZ2-533           | A          | 201 274 290 319 362 400                   | 73 151 152 188 235 263 315+C 523-524d 654 663 750   | 16013-16569/1-783     |                        |             |      |       |                                       |
| HNSZ2-547           | A          | 092 223 290 319 362 519                   | 73 152 235 263 315+C 663 750                        | 16013-16569/1-783     |                        |             |      |       |                                       |
| HNSZ2-590           | A          | 223 290 319 362 463                       | 73 151 152 200 235 263 315+C 523-524d 663 735 750   | 16013-16569/1-826     |                        |             |      |       |                                       |
| HNSZ2-602           | A          | 209 223 290 311 319 362 519               | 73 150 152 263 315+C 523-524d 663 750               | 16013-16569/1-845     |                        |             |      |       |                                       |
| HNSZ2-639           | A          | 1092 223 290 319 362                      | 73 152 235 263 309+C 315+C 663 750                  | 16013-16569/1-872     |                        |             |      |       |                                       |
| HNSZ2-641           | A          | 184 223 290 311 319 362                   | 73 200 235 263 309+C 315+C 523-524d 663 750         | 16013-16569/1-872     |                        |             |      |       |                                       |
| HNSZ2-673           | A          | 223 290 317 319 519                       | 73 235 263 309+C 315+C 318 523-524d 663 750         | 16013-16569/1-859     |                        |             |      |       |                                       |
| HNSZ2-678           | A          | 093 223 290 319 362                       | 73 152 204 207 235 309+C 315+C 523-524d 663 750     | 16013-16569/1-806     |                        |             |      |       |                                       |
| HNSZ2-691           | A          | 129 223 290 319 362                       | 73 152 200 204 235 263 309+C 315+C 523-524d 663 750 | 16013-16569/1-836     |                        |             |      |       |                                       |
| HNSZ2-710           | A          | 124 223 290 319 362                       | 73 152 200 235 263 309+C 315+C 523-524d 663 750     | 16013-16569/1-826     |                        |             |      |       |                                       |
| HNSZ2-784           | A          | 192 223 290 311 319 362                   | 73 152 235 263 315+C 523-524d 663 750               | 16013-16569/1-836     |                        |             |      |       |                                       |
| HNSZ2-786           | A          | 223 290 319 362                           | 73 200 235 263 315+C 523-524d 663 750               | 16013-16569/1-806     |                        |             |      |       |                                       |
| HNSZ2-808           | A          | 086 223 290 319                           | 73 152 235 263 309+C 315+C 523-524d 663 750         | 16013-16569/1-788     |                        |             |      |       |                                       |
| HNSZ2-810           | A          | 223 290 319 362                           | 73 152 188 235 309+C 315+C 523-524d 663 750         | 16013-16569/1-810     |                        |             |      |       |                                       |
| HNSZ2-834           | A          | 223 290 319 362                           | 73 146 152 207 235 315+C 329 523-524d 663 750       | 16013-16569/1-873     |                        |             |      |       |                                       |
| HN-SZ503            | A          | 126 223 234 290 319 519                   | 73 235 263 315+C 523-524d 663 750                   | 16043-16569/1-921     |                        |             |      |       |                                       |
| HN-SZ137            | A          | 129 182C 183C 189 223 290 319 519         | 73 152 200 235 263 309+C 315+C 523-524d 663 750     | 16086-16569/1-790     |                        |             |      |       |                                       |
| HN-SZ517            | A          | 223 290 291A 293C 319                     | 73 152 235 263 315+C 523-524d 663 750               | 16042-16569/1-921     |                        |             |      |       |                                       |
| HN-SZ464            | A          | 223 290 293C 319 519                      | 73 152 263 309+C 315+C 523-524d 663 750             | 16032-16569/1-911     |                        |             |      |       |                                       |
| HN-SZ434            | A          | 223 290 311 319 519                       | 73 146 152 235 263 315+C 318 523-524d 663 750       | 16016-16569/1-911     |                        |             |      |       |                                       |
| HN-SZ270            | A          | 223 290 319 519                           | 73 152 235 263 315+C 318 523-524d 663 750           | 16046-16569/1-921     |                        |             |      |       |                                       |
| HN-SZ59             | A          | 223 291A 293C 319                         | 73 152 235 263 315+C 523-524d 663 750               | 16024-16569/1-921     |                        |             |      |       |                                       |
| HN-SZ350            | A          | 051 093 129 182C 183C 189 223 290 319 519 | 73 143 152 235 263 309+C 315+C 523-524d 663 750     | 16009-16569/1-921     |                        |             |      |       |                                       |
| HN-SZ699            | A          | 129 188 223 287 290 319 362               | 73 152 200 204 235 263 309+C 315+C 523-524d 663 750 | 16013-16569/1-921     |                        |             |      |       |                                       |
| HN-SZ606            | A          | 129 223 290 319 362                       | 73 152 200 204 235 263 309+C 315+C 523-524d 663 750 | 16007-16569/1-921     |                        |             |      |       |                                       |
| HN-SZ688            | A          | 129 223 290 319 362                       | 73 152 200 204 235 263 309+C 315+C 523-524d 663 750 | 16013-16569/1-921     |                        |             |      |       |                                       |
| HN-SZ144            | A          | 129 223 290 319 362                       | 73 152 207 235 309+C 315+C 523-524d 663 750         | 16059-16569/1-921     |                        |             |      |       |                                       |
| HN-SZ305            | A          | 153 223 290 319 362                       | 73 152 207 235 309+C 315+C 523-524d 663 750         | 16042-16569/1-921     |                        |             |      |       |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>        | Region 2 <sup>b</sup>                                   | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281_8-289d | 8718 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|---------------------------------------|---|-----------------------|------------------------|-------------|------|---------------------------------------|
| HN-SZ588            | A          | 192 223 290 319 362                   | 73 152 200 235 263 315+C 523-524d 663 750               | 16038-16569/1-921     |                        |             |      |                                       |
| HN-SZ629            | A          | 192 223 290 319 362                   | 73 152 200 235 263 315+C 523-524d 663 750               | 16009-16569/1-921     |                        |             |      |                                       |
| HN-SZ271            | A          | 207 223 290 319 362                   | 73 152 207 235 309+C 315+C 523-524d 663 750             | 16027-16569/1-921     |                        |             |      |                                       |
| HN-SZ662            | A          | 209 223 290 311 319 362 519           | 73 150 152 263 315+C 523-524d 663 750                   | 16024-16569/1-900     |                        |             |      |                                       |
| HN-SZ661            | A          | 214 223 290 362                       | 73 152 235 263 315+C 511 523-524d 654 663 750           | 16012-16569/1-921     |                        |             |      |                                       |
| HN-SZ203            | A          | 223 256 290 319 362 519               | 73 152 235 263 309+C 315+C 523-524d 663 750             | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ28             | A          | 223 274 290 319 362 519 527           | 73 152 235 263 309+C 315+C 523-524d 663 750             | 16033-16569/1-921     |                        |             |      |                                       |
| HN-SZ404            | A          | 223 274 290 319 362 519 527           | 73 152 235 263 315+C 523-524d 663 750                   | 16086-16569/1-921     |                        |             |      |                                       |
| HN-SZ778            | A          | 223 274 290 319 362 519 527           | 73 152 235 263 315+C 523-524d 663 750                   | 16014-16569/1-921     |                        |             |      |                                       |
| HN-SZ722            | A          | 223 290 294 319 362                   | 73 152 200 235 263 315+C 523-524d 663 750               | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ391            | A          | 223 290 319 320 362                   | 73 152 207 235 309+C 315+C 523-524d 663 750             | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ555            | A          | 223 290 319 362                       | 73 143 152 235 263 309+C 315+C 523-524d 573d 663 750    | 16039-16569/1-911     |                        |             |      |                                       |
| HN-SZ142            | A          | 223 290 319 362                       | 73 146 152 207 235 315+C 329 523-524d 663 750           | 16024-16569/1-856     |                        |             |      |                                       |
| HN-SZ617            | A          | 223 290 319 362                       | 73 151 152 200 235 263 315+C 523-524d 663 735 750       | 16012-16569/1-921     |                        |             |      |                                       |
| HN-SZ652            | A          | 223 290 319 362                       | 73 152 207 235 309+C 315+C 523-524d 554 663             | 16014-16569/1-921     |                        |             |      |                                       |
| HN-SZ491            | A          | 223 290 319 362                       | 73 152 207 235 309+C 315+C 523-524d 663 750             | 16033-16569/1-911     |                        |             |      |                                       |
| HN-SZ146            | A          | 223 290 319 362                       | 73 152 207 235 309+C 315+C 554 663                      | 16054-16569/1-911     |                        |             |      |                                       |
| HN-SZ736            | A          | 223 290 319 362                       | 73 152 235 263 315+C 449 523-524d 663 750               | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ201            | A          | 223 290 319 362 463 519               | 73 151 152 200 235 263 315+C 523-524d 663 735 750       | 16012-16569/1-921     |                        |             |      |                                       |
| HN-SZ235            | A          | 223 290 319 362 463 519               | 73 151 152 200 235 263 315+C 523-524d 663 735 750       | 16012-16569/1-921     |                        |             |      |                                       |
| HN-SZ541            | A          | 223 290 319 362 519                   | 73 152 235 263 309+2C 315+C 523-524d 663 750 824        | 16009-16569/1-921     |                        |             |      |                                       |
| HN-SZ256            | A          | 223 290 319 362 525C                  | 73 152 235 263 315+C 523-524d 663 750                   | 16027-16569/1-921     |                        |             |      |                                       |
| HN-SZ601            | A          | 086 188d 223 290 319 362 519          | 73 152 200 204 235 263 309+C 315+C 523-524d 636 663 750 | 16008-16569/1-911     |                        |             |      |                                       |
| HN-SZ578            | A          | 093 124 223 290 293T 319 362          | 73 152 235 263 309+2C 315+C 523-524d 663 750            | 16009-16569/1-921     |                        |             |      |                                       |
| HN-SZ238            | A          | 093 223 274 290 319 362 519 527       | 73 152 235 263 315+C 523-524d 663 750                   | 16012-16569/1-911     |                        |             |      |                                       |
| HN-SZ396            | A          | 126 223 234 290 319 509 519           | 73 235 263 315+C 523-524d 663 750                       | 16051-16569/1-921     |                        |             |      |                                       |
| HN-SZ454            | A          | 126 223 235 290 319 474 519           | 73 235 263 309+C 315+C 523-524d 663 750                 | 16012-16569/1-921     |                        |             |      |                                       |
| HN-SZ40             | A          | 126 223 235 290 319 519               | 73 235 263 309+2C 315+C 523-524d 663 750                | 16072-16569/1-921     |                        |             |      |                                       |
| HN-SZ374            | A          | 126 223 235 290 319 519               | 73 235 263 309+C 315+C 523-524d 663 750                 | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ243            | A          | 126 235 290 319 519                   | 73 153 235 263 309+C 315+C 523-524d 663 750             | 16015-16569/1-921     |                        |             |      |                                       |
| HN-SZ457            | A          | 126 223 234 234 235 290 319 519       | 73 152 235 263 309+2C 315+C 523-524d 663 750            | 16012-16569/1-921     |                        |             |      |                                       |
| HN-SZ782            | A          | 126 223 234 235 290 319 519           | 73 152 235 263 315+C 523-524d 663 750                   | 16012-16569/1-921     |                        |             |      |                                       |
| HN-SZ525            | A          | 129 185 213 256 290 319               | 73 152 235 263 315+C 663 750                            | 16009-16569/1-921     |                        |             |      |                                       |
| HN-SZ560            | A          | 213 223 290 319                       | 73 152 235 263 315+C 318 523-524d 663 750               | 16039-16569/1-911     |                        |             |      |                                       |
| HN-SZ638            | A          | 213 223 290 319                       | 73 152 235 263 315+C 318 523-524d 663 750               | 16007-16569/1-921     |                        |             |      |                                       |
| HN-SZ118            | A          | 223 261 290 293 319 362               | 73 146 152 235 263 308-310d 315+C 523-524d 654 663 750  | 16042-16569/1-800     |                        |             |      |                                       |
| HN-SZ751            | A          | 223 290 319 344 362                   | 73 146 152 235 263 309+C 315+C 523-524d 654 663 750     | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ313            | A          | 051 129 182C 183C 189 223 290 319 519 | 73 152 235 263 315+C 523-524d 663 750                   | 16013-16569/1-892     |                        |             |      |                                       |
| HNS22-454           | B          | 183C 189 249A 274 311 519             | 73 189 235 263 309+C 315+C 709 750                      | 16012-16569/1-806     |                        |             |      |                                       |
| HNS22-680           | B          | 129 183C 189 352 355 519              | 73 150 152 185 189 263 309+C 315+C 573+5C               | 16013-16569/1-573     |                        |             |      |                                       |
| HN-SZ255            | B          | 129 182C 183C 189 261                 | 73 263 309+C 315+C 523-524d 750                         | 16042-16569/1-921     |                        |             |      |                                       |
| HN-SZ528            | B          | 129 182C 183C 189 261                 | 73 263 309+C 315+C 523-524d 750                         | 16056-16569/1-921     |                        |             |      |                                       |
| HN-SZ91             | B          | 129 182C 183C 189 261 519             | 73 263 315+C 523-524d 750                               | 16060-16569/1-921     |                        |             |      |                                       |
| HN-SZ482            | B          | 182C 183C 189 257 261 360 519         | 73 152 263 309+2C 315+C 523-524d 750                    | 16033-16569/1-911     |                        |             |      |                                       |
| HN-SZ235            | B          | 051 182C 183C 189 261 311 519         | 73 152 263 309d 315+C 750                               | 16014-16569/1-921     |                        |             |      |                                       |
| HNS22-414           | B4         | 092 182C 183C 189 217 274 289 301 519 | 73 183 263 309-310d 374 750                             | 16012-16569/1-910     |                        |             |      | 15040-15760=15326 15535               |
| HNS22-515           | B4         | 093 178 182C 183C 189 217             | 73 214 263 309+2C 315+C 368 709 750                     | 16013-16569/1-908     |                        |             |      | 15040-15760=15326 15535               |
| HNS22-558           | B4         | 079 183C 189 217 362 519              | 73 207 263 315+C 750                                    | 16013-16569/1-783     |                        |             |      | 15040-15760=15326 15535               |
| HNS22-597           | B4         | 093 178 182C 183C 189 217             | 73 214 263 315+C 368 709 750                            | 16013-16569/1-806     |                        |             |      | 15040-15760=15323 15326 15535         |
| HNS22-775           | B4         | 182C 183C 189 217                     | 73 146 214 263 315+C 368 709 750                        | 16013-16569/1-873     |                        |             |      | 15040-15760=15326                     |
| HN-SZ468            | B4         | 129 182C 183C 189 217                 | 73 263 309+C 315+C 338 523-524d 750                     | 16032-16569/1-921     |                        |             |      |                                       |
| HN-SZ610            | B4         | 182C 183C 189 217                     | 73 150 195 263 279 315+C 750                            | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ53             | B4         | 183C 189 217 234 381 519              | 73 263 309+2C 315+C 750                                 | 16027-16569/1-921     |                        |             |      |                                       |
| HN-SZ563            | B4         | 183C 189 217 519                      | 73 263 309+C 315+C 316                                  | 16032-16569/1-675     |                        |             |      |                                       |
| HN-SZ231            | B4         | 092 182C 183C 189 217 274 289 301 519 | 73 183 263 310d 315+C 374 750                           | 16015-16569/1-921     |                        |             |      |                                       |
| HN-SZ428            | B4         | 093 178 182C 183C 189 217             | 73 214 263 315+C 368 709 750                            | 16042-16569/1-921     |                        |             |      |                                       |
| HNS22-442           | B4a'g      | 129 182C 183C 189 217 261 519         | 73 263 308-310d 523-524d 709 750                        | 16012-16569/1-910     |                        |             |      |                                       |
| HNS22-447           | B4a'g      | 129 182C 183C 189 217 261 519         | 71+G 73 263 315+C 523-524d 709 750                      | 16012-16569/1-826     |                        |             |      |                                       |
| HNS22-472           | B4ag       | 141 150 182C 183C 189 217 261 519     | 73 146 263 309+C 315+C 523-524d 709 750                 | 16012-16569/1-908     |                        |             |      |                                       |
| HNS22-523           | B4ag       | 129 167 182C 183C 189 217 261 519     | 44+C 73 146 263 309+2C 315+C 523-524d                   | 16013-16569/1-565     |                        |             |      |                                       |
| HNS22-765           | B4a'g      | 168 182C 183C 189 217 261 311 519     | 73 182 185 263 309+2C 315+C 523-524d 750                | 16013-16569/1-806     |                        |             |      |                                       |
| HNS22-793           | B4a'g      | 092 182C 183C 189 217 261 299 519     | 73 193 263 309+C 315+C 523-524d 709 750                 | 16013-16569/1-797     |                        |             |      |                                       |
| HN-SZ513            | B4a'g      | 129 167 182C 183C 189 217 261 519     | 44+C 73 146 263 315+C 523-524d 709 750                  | 16056-16569/1-911     |                        |             |      |                                       |
| HN-SZ718            | B4a'g      | 129 182C 183C 189 217 261             | 73 146 263 309+C 315+C 523-524d 709 750                 | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ227            | B4a'g      | 129 182C 183C 189 217 261 519         | 73 263 308-310d 523-524d 709 750                        | 16017-16569/1-921     |                        |             |      |                                       |
| HN-SZ16             | B4a'g      | 150 182C 183C 189 217 261 519         | 73 146 263 309d 315+C 523-524d 709 750                  | 16017-16569/1-921     |                        |             |      |                                       |
| HN-SZ655            | B4a'g      | 167 182C 183C 189 217 261 311 390 519 | 73 146 185 263 309+2C 315+C 523-524d 709 750            | 16012-16569/1-911     |                        |             |      |                                       |

| Sample <sup>a</sup> | Haplotype | Region 1 (16000+) <sup>b</sup>             | Region 2 <sup>b</sup>                           | Coverage <sup>c</sup> | Additional polymorphisms <sup>e</sup> |
|---------------------|-----------|--|---|-----------------------|---------------------------------------|
| HN-SZ254            | B4a'g     | 168 182C 183C 189 217 261 311 519          | 73 146 263 309+2C 315+C 523-524d 750            | 16016-16569/1-921     | 12406                                 |
| HN-SZ651            | B4a'g     | 182C 183C 186 189 217 261 299 519          | 73 193 263 315+C 523-524d 709 750               | 16007-16569/1-921     | 10809                                 |
| HN-SZ13             | B4a'g     | 182C 183C 189 217 261 299 519              | 73 152 193 263 309+2C 315+C 523-524d 709 750    | 16013-16569/1-911     | 10586                                 |
| HN-SZ14             | B4a'g     | 182C 183C 189 217 261 327 519              | 73 146 263 309+2C 315+C 523-524d 709 750        | 16017-16569/1-911     | 10535                                 |
| HN-SZ530            | B4a'g     | 182C 183C 189 217 261 519                  | 73 146 263 309+2C 315+C 523-524d 573+C 750      | 16043-16569/1-832     | 10310                                 |
| HN-SZ683            | B4a'g     | 182C 183C 189 217 261 519                  | 73 89 146 263 309+C 315+C 523-524d 709 750      | 16012-16569/1-921     | 10289                                 |
| HN-SZ220            | B4a'g     | 093 129 182C 183C 189 217 261              | 73 146 263 309+2C 315+C 523-524d 750            | 16033-16569/1-921     | 5108                                  |
| HN-SZ686            | B4a'g     | 093 129 182C 183C 189 217 261 519          | 73 263 307-310d 315+C 523-524d 709 750          | 16013-16569/1-852     | 5099                                  |
| HN-SZ669            | B4a'g     | 093 145 182C 183C 189 217 261 519          | 73 146 263 309+2C 315+C 523-524d 709 750        | 16013-16569/1-921     | 5047                                  |
| HN-SZ766            | B4a'g     | 093 182C 183C 189 217 243 261 278 519      | 73 146 150 263 309+2C 315+C 523-524d 709 750    | 16027-16569/1-814     | 5024                                  |
| HN-SZ290            | B4a'g     | 093 182C 183C 189 217 261 519              | 71+G 73 75 89 263 309+2C 315+C 523-524d 709 750 | 16017-16569/1-921     | 50108                                 |
| HNSZ2-424           | B4a'g     | 182C 183C 189 217 261                      | 73 263 309+2C 315+C 750                         | 16012-16569/1-908     | 5024                                  |
| HNSZ2-455           | B4a'g     | 181C 182C 183C 189 217 240 261             | 73 263 309+2C 315+C 736h 750                    | 16012-16569/1-908     | 50108                                 |
| HNSZ2-481           | B4a'g     | 182C 183C 189 217 261                      | 73 263 309+2C 315+C 613 523-524d 593 750        | 16012-16569/1-908     | 5024                                  |
| HNSZ2-537           | B4a'g     | 182C 183C 189 217 234 261 519              | 73 195 263 309d 315+C 523-524d 750              | 16013-16569/1-806     | 50108                                 |
| HNSZ2-591           | B4a'g     | 150 182C 183C 189 217 261 362              | 73 263 309+C 315+C 466 523-524d 750             | 16013-16569/1-806     | 5024                                  |
| HNSZ2-601           | B4a'g     | 093 182C 183C 189 217 261                  | 73 263 309+3C 315+C 750                         | 16013-16569/1-908     | 50108                                 |
| HNSZ2-637           | B4a'g     | 093 182C 183C 189 217 261 327 519          | 73 263 309+2C 315+C 523-524d 750                | 16013-16569/1-908     | 5024                                  |
| HNSZ2-701           | B4a'g     | 181C 182C 183C 189 213 217 230 261 295 519 | 73 152 263 309+2C 315+C 523-524d 750            | 16013-16569/1-908     | 50108                                 |
| HNSZ2-709           | B4a'g     | 182C 183C 189 217 261 519                  | 73 263 309+2C 315+C 523-524d 573+4C             | 16013-16569/1-573     | 5024                                  |
| HNSZ2-762           | B4a'g     | 093 182C 183C 189 217 261 357 519          | 73 263 309+C 315+C 523-524d 750                 | 16013-16569/1-851     | 50108                                 |
| HNSZ2-787           | B4a'g     | 182C 183C 189 217 261                      | 73 263 309+2C 315+C 523-524d 750                | 16013-16569/1-908     | 5024                                  |
| HNSZ2-819           | B4a'g     | 182C 183C 189 217 219 261 286 519          | 73 263 309d 315+C 523-524d 750                  | 16013-16569/1-836     | 50108                                 |
| HN-SZ600            | B4a'g     | 126 182C 183C 189 217 261 519              | 73 207 263 309+C 315+C 523-524d 750             | 16007-16569/1-921     | 5024                                  |
| HN-SZ5              | B4a'g     | 129 182C 183C 189 217 240 261              | 73 263 309+C 315+C 750                          | 16033-16569/1-921     | 50108                                 |
| HN-SZ460            | B4a'g     | 129 182C 183C 189 217 261                  | 73 263 272 309+2C 315+C 523-524d 750            | 16015-16569/1-921     | 5024                                  |
| HN-SZ388            | B4a'g     | 129 182C 183C 189 217 261                  | 73 263 309+2C 315+C 523-524d 750                | 16018-16569/1-921     | 50108                                 |
| HN-SZ221            | B4a'g     | 129 182C 183C 189 217 261                  | 73 263 315+C 523-524d 750                       | 16015-16569/1-921     | 5024                                  |
| HN-SZ622            | B4a'g     | 129 182C 183C 189 217 261 356 519          | 73 93 263 315+C 513 523-524d 750                | 16013-16569/1-921     | 50108                                 |
| HN-SZ593            | B4a'g     | 129 182C 183C 189 217 261 356 519          | 73 93 263 315+C 513 523-524d 750                | 16038-16569/1-921     | 5024                                  |
| HN-SZ650            | B4a'g     | 136 168 182C 183C 189 217 258C 261 311 519 | 73 263 309+C 315+C 523-524d 750                 | 16012-16569/1-751     | 50108                                 |
| HN-SZ198            | B4a'g     | 150 182C 183C 189 217 240 261              | 73 195 263 315+C 523-524d 750                   | 16012-16569/1-921     | 5024                                  |
| HN-SZ446            | B4a'g     | 168 182C 183C 189 217 258C 261 311 519     | 73 263 309+C 315+C 523-524d 750                 | 16009-16569/1-921     | 50108                                 |
| HN-SZ185            | B4a'g     | 168 182C 183C 189 217 261 311 519          | 73 263 309+C 315+C 523-524d 750                 | 16050-16569/1-921     | 5024                                  |
| HN-SZ312            | B4a'g     | 182C 183C 189 217 219 261 286 519          | 73 263 309d 315+C 523-524d 750                  | 16042-16569/1-921     | 50108                                 |
| HN-SZ66             | B4a'g     | 182C 183C 189 217 234 261 519              | 73 195 263 309+C 315+C 523-524d 750             | 16013-16569/1-921     | 5024                                  |
| HN-SZ620            | B4a'g     | 182C 183C 189 217 248 261 299 355 390 519  | 73 263 309+2C 315+C 750                         | 16013-16569/1-921     | 50108                                 |
| HN-SZ266            | B4a'g     | 182C 183C 189 217 257 261 360 519          | 73 152 263 309+C 315+C 523-524d 750             | 16016-16569/1-921     | 5024                                  |
| HN-SZ709            | B4a'g     | 182C 183C 189 217 261                      | 73 150 195 263 309+2C 315+C 523-524d 750        | 16018-16569/1-833     | 50108                                 |
| HN-SZ666            | B4a'g     | 182C 183C 189 217 261                      | 73 263 309+2C 315+C 750                         | 16013-16569/1-921     | 5024                                  |
| HN-SZ158            | B4a'g     | 182C 183C 189 217 261                      | 73 263 315+C 750                                | 16013-16569/1-921     | 5024                                  |
| HN-SZ566            | B4a'g     | 182C 183C 189 217 261 266 519              | 73 263 309+2C 315+C 523-524d 750                | 16072-16569/1-921     | 50108                                 |
| HN-SZ365            | B4a'g     | 182C 183C 189 217 261 519                  | 73 263 315+C 523-524d 750                       | 16032-16569/1-921     | 5024                                  |
| HN-SZ258            | B4a'g     | 092 182C 183C 189 217 261 399 519          | 73 200 263 309+C 315+C 523-524d 750             | 16072-16569/1-911     | 50108                                 |
| HN-SZ24             | B4a'g     | 093 104A 182C 183C 189 217 261 271         | 73 263 315+C 750                                | 16024-16569/1-921     | 5024                                  |
| HN-SZ557            | B4a'g     | 093 129 182C 183C 189 217 261 287          | 73 152 263 309+C 315+C 523-524d 750             | 16043-16569/1-911     | 50108                                 |
| HN-SZ635            | B4a'g     | 093 129 182C 183C 189 217 261 287          | 73 152 263 315+C 523-524d 750                   | 16012-16569/1-921     | 5024                                  |
| HN-SZ36             | B4a'g     | 093 129 182C 183C 189 217 261 526          | 73 207 263 309+2C 315+C 523-524d 750            | 16024-16569/1-921     | 50108                                 |
| HN-SZ98             | B4a'g     | 093 182C 183C 189 217 261                  | 73 263 309+2C 315+C 750                         | 16055-16569/1-921     | 5024                                  |
| HN-SZ559            | B4a'g     | 093 182C 183C 189 217 261                  | 73 263 309+2C 315+C 750                         | 16033-16569/1-914     | 50108                                 |
| HN-SZ758            | B4a'g     | 093 182C 183C 189 217 261                  | 73 263 309+C 315+C                              | 16013-16569/1-670     | 5024                                  |
| HN-SZ317            | B4a'g     | 093 182C 183C 189 217 261                  | 73 263 309+C 315+C 750                          | 16012-16569/1-874     | 50108                                 |
| HN-SZ170            | B4a'g     | 093 182C 183C 189 217 261                  | 73 263 315+C 523-524d 750                       | 16089-16569/1-921     | 5024                                  |
| HN-SZ11             | B4a'g     | 093 182C 183C 189 217 261                  | 73 263 315+C 750                                | 16017-16569/1-911     | 50108                                 |
| HN-SZ533            | B4a'g     | 093 182C 183C 189 217 261                  | 73 263 315+C 750                                | 16027-16569/1-921     | 5024                                  |
| HN-SZ75             | B4a'g     | 093 182C 183C 189 217 261 299 355 390 519  | 73 263 308-309d 315+C 750                       | 16017-16569/1-921     | 50108                                 |
| HN-SZ129            | B4a'g     | 093 182C 183C 189 217 261 357 519          | 73 263 309+2C 315+C 523-524d 750                | 16068-16569/1-798     | 5024                                  |
| HN-SZ314            | B4b       | 136 154 182C 183C 189 217 218 519          | 73 249d 263 309+2C 315+C 523-524d 750           | 16042-16569/1-886     | 50108                                 |
| HN-SZ310            | B4b       | 136 182C 183C 189 217 218 399 519          | 73 227 263 309+2C 315+C 499 636 750 827         | 16042-16569/1-921     | 5024                                  |
| HN-SZ301            | B4b       | 136 182C 183C 189 217 218 399 519          | 73 227h 263 309+2C 315+C 499 636 750 827        | 16042-16569/1-921     | 50108                                 |
| HN-SZ82             | B4b       | 136 182C 183C 189 217 298 519              | 73 150 152 263 315+C 357 471 499 750 827        | 16043-16569/1-921     | 5024                                  |
| HN-SZ47             | B4b       | 136 182C 183C 189 217 298 519              | 73 150 152 263 315+C 357 499 750 827            | 16032-16569/1-911     | 50108                                 |
| HN-SZ754            | B4b       | 136 183C 189 217 218 239 248 519           | 73 263 315+C 499 750 827                        | 16013-16569/1-921     | 5024                                  |
| HN-SZ1              | B4b       | 136 183C 189 217 218 519                   | 73 227 263 309+2C 315+C 499 636 750 827         | 16012-16569/1-911     | 50108                                 |
| HN-SZ109            | B4b       | 136 183C 189 217 234 239 309 354 519       | 73 207 263 309+2C 315+C 498 499 750 827         | 16017-16569/1-921     | 5024                                  |
| HN-SZ52             | B4b       | 136 183C 189 217 260 325 519               | 73 263 315+C 499 523-524d 750 827               | 16009-16569/1-921     | 50108                                 |



| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>             | Region 2 <sup>b</sup>                                  | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281_8-289d | 8718 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|--|--|-----------------------|------------------------|-------------|------|---------------------------------------|
| HN-SZ113            | B4g        | 181C 182C 183C 189 213 217 261 292 362 519 | 61A 62 73 263 309+2C 315+C 523-524d 750                | 16061-16569/1-921     |                        |             |      |                                       |
| HN-SZ587            | B4g        | 181C 182C 183C 189 213 217 261 292 398 519 | 73 146 263 315+C 523-524d 750                          | 16039-16569/1-921     |                        |             |      |                                       |
| HN-SZ630            | B4g        | 181C 182C 183C 189 213 217 261 292 398 519 | 73 146 263 315+C 523-524d 750                          | 16012-16569/1-911     |                        |             |      |                                       |
| HN-SZ737            | B4g        | 181C 182C 183C 189 213 217 261 292 519     | 61A 62 73 263 315+C 523-524d 750                       | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ604            | B5         | 017 140 182C 183C 189 227 234 243 519      | 73 152 189 203 222 263 309+C 315+C 523-524d 709 750    | 16009-16569/1-911     |                        |             |      |                                       |
| HNSZ2-495           | B5a        | 140 183C 189 234 266A 519                  | 73 210 263 309+2C 315+C 523-524d 709 750               | 16013-16569/1-862     |                        |             |      |                                       |
| HNSZ2-497           | B5a        | 140 183C 189 266A 519                      | 73 210 263 309+2C 315+C 523-524d 709 750               | 16013-16569/1-873     |                        |             |      |                                       |
| HNSZ2-553           | B5a        | 140 182C 183C 189 266A 519                 | 73 210 263 315+C 593 709 750                           | 16013-16569/1-771     |                        |             |      |                                       |
| HNSZ2-563           | B5a        | 140 183C 189 264 266A 361 399 519          | 73 152 153 204 210 263 309+C 315+C 523-524d 709 750    | 16013-16569/1-851     |                        |             |      |                                       |
| HNSZ2-584           | B5a        | 140 178 189 223 266G 274 291 519           | 73 210 263 309+C 315+C 523-524d                        | 16013-16569/1-600     |                        |             |      |                                       |
| HNSZ2-615           | B5a        | 140 182C 183C 189 266A 519                 | 73 210 263 309+2C 315+C 523-524d 709 750               | 16013-16569/1-908     |                        |             |      |                                       |
| HNSZ2-626           | B5a        | 182C 183C 189 266A 519                     | 73 191+A 194 204 210 263 309+3C 315+C 523-524d 709 750 | 16013-16569/1-908     |                        |             |      |                                       |
| HNSZ2-633           | B5a        | 131 140 183C 189 266A 519                  | 73 150 210 263 315+C 523-524d 573+3C                   | 16013-16569/1-573     |                        |             |      |                                       |
| HNSZ2-649           | B5a        | 140 182C 183C 189 266A 482 519             | 73 210 263 309+2C 315+C 523-524d 709 750               | 16013-16569/1-908     |                        |             |      |                                       |
| HNSZ2-693           | B5a        | 140 183C 189 266A 519                      | 73 210 263 315+C 523-524d 593 709 750                  | 16013-16569/1-826     |                        |             |      |                                       |
| HNSZ2-722           | B5a        | 140 182C 183C 189 266A 519                 | 73 210 263 315+C 523-524d 593 709 750                  | 16013-16569/1-783     |                        |             |      |                                       |
| HNSZ2-747           | B5a        | 140 183C 189 266A 519                      | 73 210 263 309+C 315+C 523-524d 709 750                | 16013-16569/1-806     |                        |             |      |                                       |
| HNSZ2-772           | B5a        | 140 183C 189 266A 519                      | 73 210 263 315+C 523-524d 593 709 750                  | 16013-16569/1-826     |                        |             |      |                                       |
| HNSZ2-790           | B5a        | 140 183C 189 266A 519                      | 73 210 263 309+C 315+C 523-524d 593 709 750            | 16013-16569/1-873     |                        |             |      |                                       |
| HNSZ2-795           | B5a        | 140 170 183C 189 266A 278 320 519          | 73 210 263 315+C 471 523-524d 709 750                  | 16013-16569/1-826     |                        |             |      |                                       |
| HNSZ2-800           | B5a        | 140 183C 189 257 266A 519                  | 73 210 263 309+C 315+C 523-524d 709 750                | 16013-16569/1-806     |                        |             |      |                                       |
| HNSZ2-804           | B5a        | 140 183C 189 266A 519                      | 73 210 235 263 315+C 523-524d 709 750                  | 16013-16569/1-845     |                        |             |      |                                       |
| HNSZ2-805           | B5a        | 140 183C 189 266A 286 465 519              | 73 146 210 263 309+2C 315+C 523-524d 709 750           | 16013-16569/1-908     |                        |             |      |                                       |
| HNSZ2-814           | B5a        | 140 183C 189 262 266A 311 519              | 73 210 263 315+C 523-524d 593 709 750                  | 16013-16569/1-836     |                        |             |      |                                       |
| HNSZ2-8548          | B5a        | 129 140 183C 189 266A 519                  | 73 210 263 309+C 315+C 523-524d 709 750                | 16037-16569/1-921     |                        |             |      |                                       |
| HN-SZ538            | B5a        | 140 148 182C 183C 189 266A 519             | 73 195 210 263 309+2C 315+C 523-524d 709 750           | 16008-16569/1-911     |                        |             |      |                                       |
| HN-SZ200            | B5a        | 140 182C 183C 189 257 266A                 | 73 210 263 309+2C 315+C 523-524d 709 750               | 16042-16569/1-914     |                        |             |      |                                       |
| HN-SZ467            | B5a        | 140 182C 183C 189 266A                     | 73 210 263 309d 315+C 523-524d 709 750                 | 16043-16569/1-921     |                        |             |      |                                       |
| <b>HN-SZ364</b>     | B5a        | 140 182C 183C 189 266A 519                 | 73 210 263 309+2C 315+C 501 523-524d 593 709 750       | 16024-16569/1-852     |                        |             |      |                                       |
| HN-SZ368            | B5a        | 140 182C 183C 189 266A 519                 | 73 210 263 309+2C 315+C 523-524d 709 750               | 16016-16569/1-921     |                        |             |      |                                       |
| HN-SZ450            | B5a        | 140 182C 183C 189 266A 519                 | 73 210 263 309+C 315+C 523-524d 547 709 750            | 16014-16569/1-914     |                        |             |      |                                       |
| HN-SZ39             | B5a        | 140 182C 183C 189 266A 519                 | 73 210 263 309+C 315+C 523-524d 709 750                | 16032-16569/1-914     |                        |             |      |                                       |
| HN-SZ443            | B5a        | 140 182C 183C 189 266A 519                 | 73 210 263 315+C 523-524d 593 709 750                  | 16032-16569/1-920     |                        |             |      |                                       |
| HN-SZ469            | B5a        | 140 182C 183C 189 266A 519                 | 73 210 263 315+C 523-524d 593 709 750                  | 16025-16569/1-911     |                        |             |      |                                       |
| HN-SZ394            | B5a        | 140 183C 189 209 266A 309 390 519          | 73 210 263 309+C 315+C 523-524d 709 750                | 16023-16569/1-921     |                        |             |      |                                       |
| HN-SZ148            | B5a        | 140 183C 189 209 266A 390 519              | 73 210 263 309+2C 315+C 523-524d 709 750               | 16032-16569/1-921     |                        |             |      |                                       |
| HN-SZ297            | B5a        | 140 183C 189 212 213 260 266A 311 519      | 73 210 263 294 309+C 315+C 709 750                     | 16033-16569/1-921     |                        |             |      |                                       |
| HN-SZ366            | B5a        | 140 183C 189 262 266A 274 519              | 64 73 210 263 315+C 523-524d 593 709 750               | 16019-16569/1-921     |                        |             |      |                                       |
| HN-SZ511            | B5a        | 140 183C 189 262 266A 278 519              | 73 210 263 315+C 523-524d 593 709 750                  | 16024-16569/1-921     |                        |             |      |                                       |
| HN-SZ339            | B5a        | 140 183C 189 262 266A 519                  | 64 73 210 263 309+C 315+C 523-524d 593 709 750         | 16032-16569/1-911     |                        |             |      |                                       |
| HN-SZ221            | B5a        | 140 183C 189 262 266A 519                  | 73 210 263 309+C 315+C 523-524d 593 709 750            | 16017-16569/1-909     |                        |             |      |                                       |
| HN-SZ45             | B5a        | 140 183C 189 266A                          | 73 210 263 309+2C 315+C 523-524d 709 750               | 16027-16569/1-911     |                        |             |      |                                       |
| HN-SZ184            | B5a        | 140 183C 189 266A 289h 519                 | 73 210 263 309+C 315+C 523-524d 709 750                | 16035-16569/1-902     |                        |             |      |                                       |
| HN-SZ376            | B5a        | 140 183C 189 266A 294 519                  | 73 210 263 309+C 315+C 523-524d 593 709 750            | 16033-16569/1-921     |                        |             |      |                                       |
| HN-SZ455            | B5a        | 140 183C 189 266A 300 519                  | 73 146 210 263 309+2C 315+C 418 523-524d 709 750       | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ730            | B5a        | 140 183C 189 266A 311 519                  | 73 152 210 263 309+2C 315+C 471 523-524d 593 709 750   | 16017-16569/1-921     |                        |             |      |                                       |
| HN-SZ12             | B5a        | 140 183C 189 266A 519                      | 73 210 263 309+C 315+C 523-524d 593 709 750            | 16017-16569/1-911     |                        |             |      |                                       |
| HN-SZ136            | B5a        | 140 183C 189 266A 519                      | 73 210 263 309+C 315+C 523-524d 593 709 750            | 16017-16569/1-909     |                        |             |      |                                       |
| HN-SZ239            | B5a        | 140 183C 189 266A 519                      | 73 210 263 309+C 315+C 523-524d 593 709 750            | 16017-16569/1-921     |                        |             |      |                                       |
| <b>HN-SZ246</b>     | B5a        | 140 183C 189 266A 519                      | 73 210 263 309+C 315+C 523-524d 593 709 750            | 16072-16569/1-921     |                        |             |      |                                       |
| HN-SZ558            | B5a        | 140 183C 189 266A 519                      | 73 210 263 309+C 315+C 523-524d 593 709 750            | 16039-16569/1-909     |                        |             |      |                                       |
| HN-SZ637            | B5a        | 140 183C 189 266A 519                      | 73 210 263 309+C 315+C 523-524d 593 709 750            | 16012-16569/1-921     |                        |             |      |                                       |
| <b>HN-SZ284</b>     | B5a        | 140 183C 189 266A 519                      | 73 210 263 309+C 315+C 523-524d 709 750                | 16047-16569/1-914     |                        |             |      |                                       |
| HN-SZ518            | B5a        | 140 183C 189 266A 519                      | 73 210 263 309+C 315+C 523-524d 709 750                | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ658            | B5a        | 140 183C 189 266A 519                      | 73 210 263 309+C 315+C 523-524d 709 750                | 16017-16569/1-908     |                        |             |      |                                       |
| HN-SZ7              | B5a        | 140 183C 189 266A 519                      | 73 210 263 315+C 523-524d 709 750                      | 16024-16569/1-911     |                        |             |      |                                       |
| HN-SZ280            | B5a        | 140 183C 189 266A 519                      | 73 210 263 315+C 523-524d 709 750                      | 16074-16569/1-914     |                        |             |      |                                       |
| HN-SZ512            | B5a        | 140 183C 189 266A 519                      | 73 210 263 315+C 523-524d 709 750                      | 16043-16569/1-921     |                        |             |      |                                       |
| HN-SZ729            | B5a        | 140 183C 189 266A 519                      | 73 210 263 315+C 523-524d 709 750                      | 16017-16569/1-914     |                        |             |      |                                       |
| HN-SZ439            | B5a        | 140 187 189 256 266G 519                   | 73 93 210 263 309+C 315+C 523-524d 709 750             | 16015-16569/1-921     |                        |             |      |                                       |
| HN-SZ283            | B5a        | 140 187 189 256 266G 519                   | 73 93 210 263 315+C 523-524d 709 750 784d              | 16033-16569/1-911     |                        |             |      |                                       |
| HN-SZ257            | B5a        | 182C 183C 189 266A 362 519                 | 73 191+A 204 210 256 263 309+3C 315+C 523-524d 709 750 | 16032-16569/1-921     |                        |             |      |                                       |
| HN-SZ132            | B5a        | 182C 183C 189 266A 519                     | 73 150 210 263 309+2C 315+C 523-524d 709 750           | 16044-16569/1-921     |                        |             |      |                                       |
| HN-SZ762            | B5a        | 066 140 182C 183C 189 266A 519             | 73 210 263 309+C 523-524d 709 750                      | 16015-16569/1-921     |                        |             |      |                                       |
| <b>HN-SZ291</b>     | B5a        | 066 140 183C 189 266A 519                  | 73 210 263 315+C 523-524d 709 750                      | 16031-16569/1-908     |                        |             |      |                                       |
| HN-SZ60             | B5a        | 092 140 182C 183C 189 266A 519             | 73 210 263 309+2C 313-320d 523-524d 709 750            | 16017-16569/1-921     |                        |             |      |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>                    | Region 2 <sup>b</sup>                                    | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281-8-289d | 8718 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|---|--|-----------------------|------------------------|-------------|------|---------------------------------------|
| HN-SZ17             | B5a        | 093 129 140 183C 189 260 266G 519                 | 73 210 263 294 315+C 709 750                             | 16018-16569/1-911     |                        |             |      |                                       |
| HN-SZ398            | B5a        | 093 129 140 187 189 266G 319 519                  | 73 93 210 263 315+C 508 523-524d 709 750                 | 16042-16569/1-921     |                        |             |      |                                       |
| HN-SZ287            | B5a        | 093 140 183C 189 266A 361 399 519                 | 73 152 153 210 263 309+C 315+C 523-524d 709 750          | 16090-16569/1-911     |                        |             |      |                                       |
| HN-SZ204            | B5a        | 093 140 183C 189 266A 519                         | 73 150 210 263 309+C 315+C 499 523-524d 709 750          | 16090-16569/1-918     |                        |             |      |                                       |
| HNSZ2-467           | B5b        | 140 182C 183C 189 243 342 355 519                 | 73 103 263 309+C 315+C 523-524d 709 750                  | 16012-16569/1-910     |                        |             |      |                                       |
| HNSZ2-498           | B5b        | 140 183C 189 243 519                              | 73 103 152 195 198 204 263 315+C 523-524d 573+3C 709 750 | 16013-16569/1-806     |                        |             |      |                                       |
| HNSZ2-568           | B5b        | 140 183C 189 243 311 519                          | 73 204 263 315+C 523-524d 709 750                        | 16013-16569/1-806     |                        |             |      |                                       |
| HNSZ2-623           | B5b        | 111 129 140 182C 183C 189 234 243 304 463 519     | 73 103 131 204 263 309+2C 315+C 523-524d 709 750         | 16013-16569/1-806     |                        |             |      |                                       |
| HNSZ2-712           | B5b        | 140 183C 189 243 519                              | 55G 73 204 263 309+2C 315+C 523-524d 573+2C 709 750      | 16013-16569/1-908     |                        |             |      |                                       |
| HN-SZ442            | B5b        | 111 129 140 182C 183C 189 234 243 261 304 463 519 | 73 103 131 204 263 309+2C 315+C 523-524d 709 750         | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ552            | B5b        | 111 140 182C 183C 189 234 243 463 519             | 73 103 143 204 263 309+C 315+C 523-524d 709 750          | 16013-16569/1-911     |                        |             |      |                                       |
| HN-SZ633            | B5b        | 111 140 182C 183C 189 234 243 463 519             | 73 103 143 204 263 309+C 315+C 523-524d 709 750          | 16012-16569/1-911     |                        |             |      |                                       |
| HN-SZ177            | B5b        | 111 140 182C 183C 189 234 243 463 519             | 73 131 204 207 263 309+3C 315+C 523-524d 709 750         | 16084-16569/1-921     |                        |             |      |                                       |
| HN-SZ78             | B5b        | 111 140 183C 189 234 243 463 519                  | 73 131 203 204 263 309+C 315+C 523-524d 709 750          | 16017-16569/1-921     |                        |             |      |                                       |
| HN-SZ85             | B5b        | 140 182C 183C 189 243 257 278 362 519             | 73 103 146 204 263 315+C 709 750                         | 16042-16569/1-921     |                        |             |      |                                       |
| HN-SZ102            | B5b        | 140 183C 189 243 288 519                          | 73 103 189 200 204 235 263 315+C 523-524d 709 750        | 16012-16569/1-790     |                        |             |      |                                       |
| HN-SZ304            | B5b        | 140 183C 189 243 311 519                          | 73 204 263 315+C 523-524d 709 750                        | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ723            | B5b        | 140 183C 189 243 316 355 390 519                  | 73 103 263 315+C 523-524d 709 750                        | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ761            | B5b        | 140 183C 189 243 519                              | 73 152 195 204 263 315+C 523-524d 573+3C 709 750         | 16013-16569/1-873     |                        |             |      |                                       |
| HN-SZ616            | B5b        | 140 183C 189 243 519                              | 73 204 263 315+C 523-524d 709 750                        | 16012-16569/1-921     |                        |             |      |                                       |
| HNSZ2-431           | C          | 223 298 327 519                                   | 44+C 73 249d 263 315+C 489 750                           | 16013-16569/1-870     |                        |             |      |                                       |
| HNSZ2-437           | C          | 171 223 298 327 344 357 519                       | 47 73 249d 263 309+C 315+C 489 750                       | 16013-16569/1-836     |                        |             |      |                                       |
| HNSZ2-452           | C          | 223 298 327 519                                   | 73 234 249d 263 309+C 315+C 489 750                      | 16013-16569/1-871     |                        |             |      |                                       |
| HNSZ2-461           | C          | 223 298 327 519                                   | 73 146 151 249d 263 489 750                              | 16013-16569/1-869     |                        |             |      |                                       |
| HNSZ2-465           | C          | 223 266 298 327 519                               | 73 150 195 249d 263 315+C 489 523-524d 750               | 16013-16569/1-825     |                        |             |      |                                       |
| HNSZ2-551           | C          | 093 172 223 298 327 519                           | 73 249d 263 315+C 489 750                                | 16013-16569/1-826     |                        |             |      |                                       |
| HNSZ2-571           | C          | 223 298 327 519                                   | 73 146 199 249d 263 315+C 489 750                        | 16013-16569/1-836     |                        |             |      |                                       |
| HNSZ2-643           | C          | 093 129 223 298 327 519                           | 73 195 249d 263 309+C 315+C 489 750                      | 16013-16569/1-806     |                        |             |      |                                       |
| HNSZ2-672           | C          | 129 189 298 327 519                               | 73 249d 263 315+C 489 750                                | 16013-16569/1-836     |                        |             |      |                                       |
| HNSZ2-700           | C          | 223 298 327 519                                   | 73 249d 263 309+C 315+C 489 750                          | 16013-16569/1-872     |                        |             |      |                                       |
| HNSZ2-753           | C          | 093 158 183C 189 223 234 298 327 519              | 73 249d 263 309+C 315+C 489 750                          | 16013-16569/1-908     |                        |             |      |                                       |
| HNSZ2-783           | C          | 189 223 298 327 519                               | 73 146 249d 263 315+C 489 750                            | 16013-16569/1-867     |                        |             |      |                                       |
| HNSZ2-802           | C          | 223 288 298 300 327 519                           | 73 249d 263 309+C 315+C 489 595+C 750                    | 16013-16569/1-806     |                        |             |      |                                       |
| HNSZ2-836           | C          | 093 223 298 327 519                               | 73 249d 263 315+C 489 750                                | 16013-16569/1-836     |                        |             |      |                                       |
| HN-SZ116            | C          | 129 223 298 319 327                               | 73 249d 263 315+C 489 523-524d 750                       | 16033-16569/1-921     |                        |             |      |                                       |
| HN-SZ608            | C          | 129 223 298 327 519                               | 73 195 249d 263 309+C 315+C 489 750                      | 16007-16569/1-911     |                        |             |      |                                       |
| HN-SZ720            | C          | 171 223 298 327 344 357 519                       | 73 207 249d 263 309+C 315+C 489 523-524d 750             | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ262            | C          | 183C 189 223 293C 298 327 519                     | 73 249d 263 309+2C 315+C 489 750                         | 16040-16569/1-921     |                        |             |      |                                       |
| HN-SZ487            | C          | 183C 189 223 298 311 325 327 519                  | 73 195 199 249d 263 309+2C 315+C 489 750                 | 16062-16569/1-911     |                        |             |      |                                       |
| HN-SZ490            | C          | 183C 189 223 298 327 519                          | 73 249d 263 309+C 315+C 489 750                          | 16033-16569/1-911     |                        |             |      |                                       |
| HN-SZ169            | C          | 183C 189 223 298 327 519 527                      | 73 249d 263 309+2C 315+C 489 750                         | 16037-16569/1-921     |                        |             |      |                                       |
| HN-SZ757            | C          | 189 223 288 298 300 327 519                       | 73 249d 263 315+C 489 595+C                              | 16013-16569/1-670     |                        |             |      |                                       |
| HN-SZ274            | C          | 189 223 298 327 519                               | 73 152 249d 263 309+C 315+C 489 721A 750                 | 16042-16569/1-921     |                        |             |      |                                       |
| HN-SZ84             | C          | 189 223 298 327 519                               | 73 249d 263 309+C 315+C 489 750                          | 16091-16569/1-921     |                        |             |      |                                       |
| HN-SZ275            | C          | 189 223 298 327 519                               | 73 249d 263 309+C 315+C 489 750                          | 16043-16569/1-905     |                        |             |      |                                       |
| HN-SZ311            | C          | 213 223 286 311 327 519                           | 73 249d 263 309+C 315+C 489 523-524d 750                 | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ597            | C          | 223 298 327 329 519                               | 73 146 249d 263 315+C 489 750                            | 16007-16569/1-911     |                        |             |      |                                       |
| HN-SZ523            | C          | 223 298 327 357 519                               | 73 204 249d 263 309+2C 315+C 489 750                     | 16027-16569/1-841     |                        |             |      |                                       |
| HN-SZ125            | C          | 223 298 327 390 519                               | 73 249d 263 309+C 315+C 489 750                          | 16017-16569/1-921     |                        |             |      |                                       |
| HN-SZ90             | C          | 223 298 327 519                                   | 73 146 249d 263 309+C 315+C 489 523-524d 750             | 16060-16569/1-921     |                        |             |      |                                       |
| HN-SZ67             | C          | 223 298 327 519                                   | 73 146 249d 263 309+2C 315+C 489 750                     | 16033-16569/1-911     |                        |             |      |                                       |
| HN-SZ663            | C          | 223 298 327 519                                   | 73 146 249d 263 315+C 489 750                            | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ206            | C          | 223 298 327 519                                   | 73 152 249d 263 309+C 315+C 489 745 750                  | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ175            | C          | 223 298 327 519                                   | 73 249d 263 309+C 315+C 489 750                          | 16033-16569/1-921     |                        |             |      |                                       |
| HN-SZ375            | C          | 223 298 327 519                                   | 73 249d 263 315+C 489 750                                | 16042-16569/1-921     |                        |             |      |                                       |
| HN-SZ719            | C          | 037 172 189 223 298 327 357 519                   | 47 73 200 249d 263 309+C 315+C 489 681 750               | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ23             | C          | 086 189 223 298 327 519                           | 73 249d 263 309+C 315+C 489 750                          | 16017-16569/1-921     |                        |             |      |                                       |
| HN-SZ759            | C          | 092 189 223 298 327 355 519                       | 73 249d 263 309+2C 315+C 489 750                         | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ579            | C          | 093 129 223 272 298 327 519                       | 73 195 249d 263 309+C 315+C 489 750                      | 16041-16569/1-911     |                        |             |      |                                       |
| HN-SZ667            | C          | 093 129 223 298 327                               | 73 195 249d 263 309+C 315+C 489 750                      | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ96             | C          | 093 129 223 298 327 362                           | 73 195 249d 263 315+C 489 750                            | 16087-16569/1-921     |                        |             |      |                                       |
| HN-SZ326            | C          | 093 172 223 298 311 327 519                       | 73 152 195 249d 263 315+C 489 750                        | 16066-16569/1-921     |                        |             |      |                                       |
| HN-SZ213            | C          | 093 172 223 298 327 519                           | 73 249d 263 309+C 315+C 489 750                          | 16024-16569/1-921     |                        |             |      |                                       |
| HN-SZ369            | C          | 093 172 223 298 327 519                           | 73 249d 263 309+C 315+C 489 750                          | 16042-16569/1-921     |                        |             |      |                                       |
| HN-SZ700            | C          | 093 185 223 298 325 327 356 527                   | 73 93 249d 263 290-291d 309+2C 315+C 489 750             | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ309            | C          | 093 223 263 298 327 519                           | 73 146 228T 249d 263 315+C 489 750                       | 16015-16569/1-921     |                        |             |      |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup> | Region 2 <sup>b</sup>                       | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281-8-289d | 8718 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|--------------------------------|---|-----------------------|------------------------|-------------|------|---------------------------------------|
| HN-SZ741            | C          | 093 223 298 327 519            | 73 249d 263 315+C 489 750                   | 16013-16569/1-874     |                        |             |      |                                       |
| HN-SZ2-418          | D4         | 092 223 362 519                | 73 263 309+C 315+C 489 750                  | 16012-16569/1-808     | -                      |             |      |                                       |
| HN-SZ2-423          | D4         | 223 274 311 362                | 73 150h 263 298 309+C 315+C 489 750         | 16012-16569/1-908     | -                      |             |      |                                       |
| HN-SZ2-439          | D4         | 129 223 256 362 519            | 73 152 263 315+C 489 750                    | 16013-16569/1-836     | -                      |             |      |                                       |
| HN-SZ2-483          | D4         | 223 316 362                    | 73 183 263 309+C 315+C 489 750              | 16013-16569/1-806     |                        |             |      | 2850-3565=3010                        |
| HN-SZ2-484          | D4         | 129 223 256 362 519            | 73 152 263 315+C 489 750                    | 16013-16569/1-836     | -                      |             |      |                                       |
| HN-SZ2-507          | D4         | 223 249 362                    | 73 153 263 309+C 315+C 489 709 750          | 16013-16569/1-806     | -                      |             |      | 2850-3565=3010; 4240-4960=4769 4883   |
| HN-SZ2-508          | D4         | 092 223 362                    | 63 73 94 146 263 309+C 315+C 489 517 750    | 16013-16569/1-910     | -                      |             |      |                                       |
| HN-SZ2-510          | D4         | 223 249 362                    | 73 263 309+C 315+C 489 750                  | 16013-16569/1-836     | -                      |             |      |                                       |
| HN-SZ2-566          | D4         | 176 192 223 316 362            | 73 184 263 315+C 489 750                    | 16013-16569/1-836     | -                      |             |      |                                       |
| HN-SZ2-567          | D4         | 192 223 316 362                | 73 263 315+C 489 750                        | 16013-16569/1-836     | -                      |             |      | 2850-3565=3010; 4240-4960=4769 4883   |
| HN-SZ2-589          | D4         | 129 223 274 311 319 362        | 73 263 298 315+C 489 750                    | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-592          | D4         | 158 223 284 287 319            | 73 152 204 263 309+C 315+C 489 523-524d 750 | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-603          | D4         | 174 179 223 343 362            | 73 131 263 315+C 489 750                    | 16013-16569/1-783     | -                      |             |      |                                       |
| HN-SZ2-606          | D4         | 223 311 362 519                | 73 152 263 309+C 315+C 489 524+AC 750       | 16013-16569/1-873     | -                      |             |      |                                       |
| HN-SZ2-619          | D4         | 129 223 362 519                | 73 146 152 217 263 309+C 315+C 489 750      | 16013-16569/1-908     | -                      |             |      |                                       |
| HN-SZ2-622          | D4         | 223 260 355 362                | 73 195 263 309+C 315+C 489 750              | 16013-16569/1-836     | -                      |             |      |                                       |
| HN-SZ2-638          | D4         | 188 223 311 362                | 73 152 263 309+C 315+C 489 750              | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-648          | D4         | 111 223 287 362 519            | 73 263 309+C 315+C 489 523-524d 750         | 16013-16569/1-845     | -                      |             |      |                                       |
| HN-SZ2-659          | D4         | 129 223 263 362 519            | 73 152 263 309+2C 315+C 489 507 750         | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-660          | D4         | 223 278 362 519                | 73 263 315+C 489 523-524d 750               | 16013-16569/1-826     | -                      |             |      |                                       |
| HN-SZ2-664          | D4         | 223 311 362 519                | 73 263 309+C 315+C 489 750                  | 16013-16569/1-873     | -                      |             |      |                                       |
| HN-SZ2-670          | D4         | 223 311 362                    | 73 263 309+C 315+C 489 750                  | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-685          | D4         | 129 223 304 362 390            | 73 151 152 263 309+C 315+C 489 750          | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-687          | D4         | 123 248 325 362 519            | 73 207 263 309+2C 315+C 489 750             | 16013-16569/1-885     | -                      |             |      |                                       |
| HN-SZ2-692          | D4         | 092 223 362                    | 73 94 263 315+C 489 750                     | 16013-16569/1-836     | -                      |             |      |                                       |
| HN-SZ2-708          | D4         | 129 132 223 256 261 362 519    | 73 152 263 315+C 489 750                    | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-711          | D4         | 223 362 519                    | 73 150 194 263 315+C 489 523-524d 711+T 750 | 16013-16569/1-865     | -                      |             |      |                                       |
| HN-SZ2-714          | D4         | 223 362 519                    | 73 204 263 309+C 315+C 489 523-524d 750 789 | 16013-16569/1-826     | -                      |             |      |                                       |
| HN-SZ2-715          | D4         | 223 362 519                    | 73 200 263 315+C 489 523-524d 573+C 629 750 | 16013-16569/1-872     | -                      |             |      |                                       |
| HN-SZ2-728          | D4         | 223 249 362                    | 73 263 309+C 315+C 489 750                  | 16013-16569/1-827     | -                      |             |      |                                       |
| HN-SZ2-730          | D4         | 169 223 274 362                | 73 263 298 309+C 315+C 489 750              | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-732          | D4         | 221 223 362 519                | 73 150 263 298 309+C 315+C 489 750          | 16013-16569/1-841     | -                      |             |      |                                       |
| HN-SZ2-738          | D4         | 129 223 294 362                | 73 263 315+C 489 523-524d 750               | 16013-16569/1-836     | -                      |             |      |                                       |
| HN-SZ2-744          | D4         | 126 172 189 223 319 362        | 73 185 195 263 315+C 489 523-524d 750       | 16013-16569/1-873     | -                      |             |      | 2850-3565=3010                        |
| HN-SZ2-746          | D4         | 129 223 263 362                | 73 152 263 309+C 315+C 489 750              | 16013-16569/1-872     | -                      |             |      |                                       |
| HN-SZ2-758          | D4         | 223 362 519                    | 73 204 263 298 315+C 489 750                | 16013-16569/1-836     | -                      |             |      |                                       |
| HN-SZ2-764          | D4         | 188 223 311 362                | 73 152 263 309+C 315+C 489 750              | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-767          | D4         | 223 274 362                    | 73 263 298 309+C 315+C 489 750              | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-770          | D4         | 223 256 311 362 519            | 73 193 200 263 315+C 489 750                | 16013-16569/1-783     | -                      |             |      |                                       |
| HN-SZ2-774          | D4         | 092 223 362                    | 73 94 263 309+C 315+C 489 750               | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-788          | D4         | 223 311 362 519                | 73 194 195 263 315+C 489 523-524d 750       | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-801          | D4         | 223 362 519                    | 73 194 263 309+C 315+C 489 523-524d 750     | 16013-16569/1-826     | -                      |             |      |                                       |
| HN-SZ2-816          | D4         | 092 223 298 362 519            | 73 263 309+C 315+C 489 750                  | 16013-16569/1-836     | -                      |             |      |                                       |
| HN-SZ2-822          | D4         | 223 311 362 519                | 73 263 309+C 315+C 489 750                  | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-831          | D4         | 092 223 362 519                | 73 263 309+C 315+C 489 750                  | 16013-16569/1-836     | -                      |             |      |                                       |
| HN-SZ2-832          | D4         | 189 223 362 519                | 73 194 263 315+C 489 523-524d 750           | 16013-16569/1-826     | -                      |             |      | 2850-3565=3010                        |
| HN-SZ2-835          | D4         | 129 223 362 519                | 73 152 217 263 309+C 315+C 489 750          | 16013-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-849          | D4         | 111 223 287 362 519            | 73 263 309+C 315+C 489 523-524d 750         | 16022-16569/1-921     | -                      |             |      |                                       |
| HN-SZ2-8574         | D4         | 129 188 214 223 362            | 73 263 309+2C 315+C 489 750                 | 16039-16569/1-921     | -                      |             |      |                                       |
| HN-SZ2-880          | D4         | 129 223 263 274 362 519        | 73 263 309+C 315+C 489 507 750              | 16018-16569/1-921     | -                      |             |      |                                       |
| HN-SZ2-856          | D4         | 165 223 362                    | 73 263 309+2C 315+C 489 750                 | 16032-16569/1-921     | -                      |             |      |                                       |
| HN-SZ2-870          | D4         | 172 223 311 362 519            | 73 150 263 315+C 489 523-524d 750           | 16023-16569/1-911     | -                      |             |      |                                       |
| HN-SZ2-875          | D4         | 172 223 362                    | 73 263 309+C 315+C 489 629 750              | 16013-16569/1-921     | -                      |             |      |                                       |
| HN-SZ2-8438         | D4         | 174 223 311 362 519            | 73 152 263 315+C 489 750                    | 16032-16569/1-921     | -                      |             |      |                                       |
| HN-SZ2-8214         | D4         | 174 223 362                    | 73 228 263 309+C 315+C 489 523-524d 750     | 16043-16569/1-921     | -                      |             |      |                                       |
| HN-SZ2-826          | D4         | 174 223 362                    | 73 263 309+C 315+C 489 523-524d 750         | 16040-16569/1-921     | -                      |             |      |                                       |
| HN-SZ2-8458         | D4         | 176 185 186 223 316 362        | 73 184 263 309+C 315+C 489 750              | 16012-16569/1-921     | -                      |             |      |                                       |
| HN-SZ2-8338         | D4         | 184 223 264 311 362            | 73 263 309+C 315+C 489 750                  | 16045-16569/1-911     | -                      |             |      |                                       |
| HN-SZ2-8236         | D4         | 184 223 311 362                | 73 263 315+C 489 750                        | 16033-16569/1-921     | -                      |             |      |                                       |
| HN-SZ2-8692         | D4         | 184 223 311 362                | 73 263 315+C 489 750                        | 16013-16569/1-921     | -                      |             |      |                                       |
| HN-SZ2-8535         | D4         | 189 190 193+2C 223 311 316 362 | 73 150 152 263 295A 309+C 315+C 489 750     | 16010-16569/1-921     | -                      |             |      |                                       |
| HN-SZ2-8506         | D4         | 192 223 316 362                | 73 183 184 263 315+C 489 750                | 16043-16569/1-891     | -                      |             |      |                                       |
| HN-SZ2-8730         | D4         | 192 223 362 519                | 73 152 263 309+C 315+C 489 523-524d 750     | 16009-16569/1-886     | -                      |             |      |                                       |
| HN-SZ2-8150         | D4         | 223 249 362                    | 43 73 263 309+2C 315+C 489 750              | 16079-16569/1-806     | -                      |             |      |                                       |
| HN-SZ2-8704         | D4         | 223 249 362                    | 73 146h 263 309+C 315+C 489 750             | 16013-16569/1-921     | -                      |             |      |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>  | Region 2 <sup>b</sup>                            | Coverage <sup>c</sup>  | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|---------------------------------|--|------------------------|---------------------------------------|
|                     |            |                                 |  | 5176_A/tu <sup>d</sup> |                                       |
| HN-SZ532            | D4         | 223 249 362                     | 73 263 309+C 315+C 489 750                       | 16009-16569/1-921      |                                       |
| HN-SZ481            | D4         | 223 249 362 482                 | 73 153 263 315+C 489 750                         | 16033-16569/1-911      | -                                     |
| HN-SZ697            | D4         | 223 256 311 355 362 519         | 73 195 200 263 315+C 489 750                     | 16012-16569/1-921      | -                                     |
| HN-SZ411            | D4         | 223 260 355 362                 | 73 195 263 309+C 315+C 489 750                   | 16007-16569/1-921      | -                                     |
| HN-SZ773            | D4         | 223 269 362 519                 | 73 146 263 309+C 315+C 489 750                   | 16012-16569/1-921      | -                                     |
| HN-SZ228            | D4         | 223 311 362                     | 73 195 263 315+C 489 750                         | 16032-16569/1-921      | -                                     |
| HN-SZ393            | D4         | 223 311 362 519                 | 73 152 263 309+2C 315+C 489 750                  | 16050-16569/1-921      | -                                     |
| HN-SZ734            | D4         | 223 311 362 519                 | 73 152 263 309+2C 315+C 489 750                  | 16013-16569/1-921      | -                                     |
| HN-SZ581            | D4         | 223 362                         | 73 204 207 263 308-310d 315+C 489 524+ACAC 750   | 16032-16569/1-921      | -                                     |
| HN-SZ27             | D4         | 223 362                         | 73 263 315+C 489 573+3C 750                      | 16024-16569/1-863      | -                                     |
| HN-SZ675            | D4         | 223 362                         | 73 263 315+C 489 750                             | 16010-16569/1-870      | -                                     |
| HN-SZ668            | D4         | 223 362 519                     | 73 263 298 315+C 489 750                         | 16013-16569/1-921      | -                                     |
| HN-SZ721            | D4         | 223 362 519                     | 73 263 309+C 315+C 489 750                       | 16013-16569/1-921      | -                                     |
| HN-SZ288            | D4         | 075 223 288 362                 | 73 263 309+C 315+C 489 750                       | 16042-16569/1-921      | -                                     |
| HN-SZ489            | D4         | 086 223 311 362                 | 73 263 309+C 315+C 338 489 750                   | 16033-16569/1-911      | -                                     |
| HN-SZ585            | D4         | 092 223 274 362 519             | 73 263 315+C 489 750                             | 16013-16569/1-921      | -                                     |
| HN-SZ475            | D4         | 092 223 362 519                 | 73 263 309+C 315+C 489 750                       | 16032-16569/1-911      | -                                     |
| HN-SZ435            | D4         | 129 132 223 256 261 362 519     | 73 152 263 315+C 489 750                         | 16032-16569/1-921      | -                                     |
| HN-SZ179            | D4         | 129 189 223 519                 | 73 152 263 309+C 315+C 489 750                   | 16081-16569/1-921      | -                                     |
| HN-SZ477            | D4         | 129 209 223 263 311 362         | 73 152 263 309+C 315+C 489 750                   | 16063-16569/1-911      | -                                     |
| HN-SZ772            | D4         | 129 223 255 362 519             | 73 152 263 309+C 315+C 489 750                   | 16012-16569/1-921      | -                                     |
| HN-SZ351            | D4         | 129 223 256 278 362 519         | 73 152 263 309+C 315+C 489 523-524d 750          | 16016-16569/1-921      | -                                     |
| HN-SZ362            | D4         | 129 223 256 362 519             | 73 152 263 309+C 315+C 411A 489 750              | 16012-16569/1-921      | -                                     |
| HN-SZ330            | D4         | 129 223 263 362 519             | 73 152 195 263 309+C 315+C 489 750 792           | 16033-16569/1-921      | -                                     |
| HN-SZ139            | D4         | 129 223 263 362 519 527         | 73 152 263 309+C 315+C 489 750 751               | 16033-16569/1-921      | -                                     |
| HN-SZ212            | D4         | 129 223 297 362 519             | 73 152 217 263 309+C 315+C 489 750               | 16018-16569/1-921      | -                                     |
| HN-SZ392            | D4         | 129 223 362                     | 73 152 263 309+C 315+C 489 750                   | 16033-16569/1-921      | -                                     |
| HN-SZ72             | D4         | 129 223 362 519                 | 73 146 152 263 309+C 315+C 489 750               | 16091-16569/1-921      | -                                     |
| HN-SZ229            | D4         | 129 223 362 519                 | 73 152 217 263 309+C 315+C 489 750               | 16023-16569/1-921      | -                                     |
| HN-SZ711            | D4         | 129 223 362 519                 | 73 152 263 309+C 315+C 489 524+AC 750            | 16009-16569/1-880      | -                                     |
| HN-SZ26             | D4         | 129 223 362 519                 | 73 152 263 315+C 489 523-524d 750                | 16060-16569/1-921      | -                                     |
| HN-SZ677            | D4         | 129 223 249 278 311 362         | 73 152 210 263 309+C 315+C 489 524+AC 750        | 16013-16569/1-795      | -                                     |
| HN-SZ572            | D4         | 129 223 249 311 362             | 73 152 263 315+C 489 750                         | 16042-16569/1-921      | -                                     |
| HN-SZ106            | D4         | 223 249 362                     | 73 152 263 309+C 315+C 489 750                   | 16033-16569/1-921      | -                                     |
| HN-SZ367            | D4         | 093 129 223 249 362             | 29 73 152 228T 263 309+C 315+C 489 750           | 16042-16569/1-921      | -                                     |
| HN-SZ115            | D4         | 093 129 223 249 362             | 73 146 152 196 263 315+C 489 750                 | 16012-16569/1-921      | -                                     |
| HN-SZ110            | D4         | 126 172 189 223 319 362         | 73 185 195 263 315+C 489 523-524d 750            | 16024-16569/1-921      | -                                     |
| HN-SZ225            | D4         | 126 172 189 223 319 362         | 73 185 195 263 315+C 489 523-524d 750            | 16015-16569/1-921      | -                                     |
| HN-SZ764            | D4         | 129 223 293 319 362             | 73 146 207 263 309+C 315+C 489 523-524d 750      | 16013-16569/1-921      | -                                     |
| HN-SZ724            | D4         | 129 223 319 356 362             | 73 263 309+C 315+C 489 523-524d 750              | 16013-16569/1-921      | -                                     |
| HN-SZ19             | D4         | 123 319 362 519                 | 73 152 263 315+C 489 523-524d 750                | 16017-16569/1-911      | -                                     |
| HN-SZ188            | D4         | 172 223 287 319 362 381 519     | 73 263 315+C 431 489 523-524d 750                | 16009-16569/1-886      | -                                     |
| HN-SZ522            | D4         | 172 223 287 319 362 519         | 73 263 309+C 315+C 431 489 523-524d 750          | 16087-16569/1-921      | -                                     |
| HN-SZ397            | D4         | 223 287 319 362                 | 73 259 263 309+2C 315+C 431 489 504 523-524d 750 | 16043-16569/1-921      | -                                     |
| HN-SZ121            | D4         | 223 287 319 362                 | 73 263 315+C 431 489 523-524d 750                | 16082-16569/1-818      | -                                     |
| HN-SZ748            | D4         | 129 223 362 519                 | 73 194 263 315+C 489 523-524d 750                | 16013-16569/1-921      | -                                     |
| HN-SZ347            | D4         | 172 362 519                     | 73 194 263 315+C 489 523-524d 750                | 16046-16569/1-911      | -                                     |
| HN-SZ249            | D4         | 183C 189 223 288 362 519        | 73 93 194 263 308-310d 315+C 489 523-524d 750    | 16009-16569/1-921      | -                                     |
| HN-SZ80             | D4         | 188 223 355 362 519             | 73 194 263 315+C 489 523-524d 750                | 16017-16569/1-921      | -                                     |
| HN-SZ29             | D4         | 189 223 362 519                 | 73 194 263 315+C 489 523-524d 750                | 16024-16569/1-921      | -                                     |
| HN-SZ322            | D4         | 223 258H 362 519                | 73 194 263 315+C 489 750                         | 16075-16569/1-921      | -                                     |
| HN-SZ592            | D4         | 082 145 172 189 223 311 362 519 | 73 194 263 315+C 489 523-524d 750                | 16013-16569/1-914      | -                                     |
| HN-SZ624            | D4         | 082 145 172 189 223 311 362 519 | 73 194 263 315+C 489 523-524d 750                | 16042-16569/1-921      | -                                     |
| HN-SZ186            | D4         | 093 223 362 519                 | 73 194 263 309+C 315+C 489 523-524d 750          | 16012-16569/1-921      | -                                     |
| HN-SZ696            | D4         | 223 249 362                     | 73 94 263 315+C 489 750                          | 16010-16569/1-921      | -                                     |
| HN-SZ276            | D4         | 223 362                         | 73 94 263 309+C 315+C 489 750                    | 16060-16569/1-921      | -                                     |
| HN-SZ461            | D4         | 223 362                         | 73 94 263 315+C 489 709 750                      | 16032-16569/1-921      | -                                     |
| HN-SZ575            | D4         | 092 223 325 362 519             | 73 94 263 309+C 315+C 489 750                    | 16009-16569/1-921      | -                                     |
| HN-SZ269            | D4         | 092 223 362                     | 73 94 146 263 309+C 315+C 489 750                | 16012-16569/1-921      | -                                     |
| HN-SZ181            | D4         | 092 223 362                     | 73 94 195 263 309+C 315+C 489 750                | 16012-16569/1-921      | -                                     |
| HN-SZ582            | D4         | 092 223 362                     | 73 94 263 309+2C 315+C 489 750                   | 16012-16569/1-911      | -                                     |
| HN-SZ573            | D4         | 092 223 362                     | 73 94 263 309+C 315+C 489 517 750                | 16069-16569/1-921      | -                                     |
| HN-SZ163            | D4         | 092 223 362                     | 73 94 263 309+C 315+C 489 709 750                | 16032-16569/1-921      | -                                     |
| HN-SZ333            | D4         | 092 223 362                     | 73 94 263 309+C 315+C 489 750                    | 16024-16569/1-911      | -                                     |
| HN-SZ208            | D4         | 092 223 362                     | 73 94 263 315+C 489 750                          | 16013-16569/1-921      | -                                     |
| HN-SZ191            | D4         | 092 223 362                     | 73 94 263 309+C 315+C 489 750                    | 16023-16569/1-921      | -                                     |
| HN-SZ38             | D4         | 223 274 362                     | 73 195 263 298 309+2C 315+C 459d 489 750         | 16033-16569/1-921      | -                                     |

| Sample <sup>a</sup> | Haplogroup      | Region 1 (16000+) <sup>b</sup>            | Region 2 <sup>b</sup>                                    | Coverage <sup>c</sup>  | Additional polymorphisms <sup>e</sup> |
|---------------------|-----------------|---|--|------------------------|---------------------------------------|
|                     |                 |   |  | 5176_A/tu <sup>d</sup> |                                       |
| HN-SZ755            | D4              | 223 274 362 519                           | 73 263 298 309+C 315+C 489 750                           | 16013-16569/1-902      | -                                     |
| HN-SZ340            | D4              | 223 362 519                               | 73 263 298 309+C 315+C 489 750                           | 16013-16569/1-911      | -                                     |
| HN-SZ101            | D4              | 223 362 526                               | 73 263 298 309+C 315+C 489 750                           | 16024-16569/1-921      | -                                     |
| HN-SZ645            | D4              | 174 223 362 519                           | 73 200 263 315+C 489 750                                 | 16009-16569/1-921      | -                                     |
| HN-SZ738            | D4              | 093n 174 223 362                          | 73 263 309+C 315+C 489 573+3C 750                        | 16013-16569/1-820      | -                                     |
| HN-SZ493            | D4              | 192 223 294 319 362                       | 73 234 263 315+C 489 523-524d 709 750                    | 16042-16569/1-921      | -                                     |
| HN-SZ684            | D4              | 223 355A 362                              | 73 195 263 315+C 489 750                                 | 16012-16569/1-921      | -                                     |
| HN-SZ358            | D5 <sup>f</sup> | 189 223 362 519                           | 73 263 315+C 489 750                                     | 16009-16569/1-921      | -                                     |
| HN-SZ680            | D5 <sup>f</sup> | 094 111 187 189 223 362 519               | 73 263 315+C 489 523-524d 750                            | 16033-16569/1-911      | -                                     |
| HNS22-446           | D5a             | 092 164 172 182C 183C 189 223 266 362     | 73 150 263 315+C 489 523-524d 750 752                    | 16012-16569/1-771      | -                                     |
| HNS22-459           | D5a             | 178 182C 183C 189 223 362 399             | 73 150 263 309+3C 315+C 489 750 752                      | 16012-16569/1-908      | -                                     |
| HNS22-460           | D5a             | 164 182C 183C 189 266 362 519             | 73 150 263 309+2C 315+C 489 523-524d 739 750 752         | 16012-16569/1-908      | -                                     |
| HNS22-488           | D5a             | 182C 183C 189 223 360 362 399             | 73 150 263 309d 315+C 489 750 752                        | 16013-16569/1-836      | -                                     |
| HNS22-500           | D5a             | 182C 183C 189 223 360 362                 | 73 146 150 263 315+C 489 750 752                         | 16013-16569/1-826      | -                                     |
| HNS22-505           | D5a             | 092 172 182C 183C 189 223 243 260 266 362 | 73 150 263 315+C 489 523-524d 750 752                    | 16013-16569/1-836      | -                                     |
| HNS22-538           | D5a             | 164 172 182C 183C 189 223 243 266 362     | 73 150 263 315+C 489 523-524d 750 752                    | 16013-16569/1-783      | -                                     |
| HNS22-544           | D5a             | 164 172 182C 183C 189 223 256 362 519     | 73 150 263 309+C 315+C 489 523-524d 750 752              | 16013-16569/1-806      | -                                     |
| HNS22-564           | D5a             | 164 172 182C 183C 189 223 266 362         | 73 150 263 309+C 315+C 489 523-524d 750 752              | 16013-16569/1-806      | -                                     |
| HNS22-573           | D5a             | 092 164 182C 183C 189 223 266 362         | 73 150 152 263 309+C 315+C 489 523-524d 750 752          | 16013-16569/1-873      | -                                     |
| HNS22-596           | D5a             | 164 172 182C 183C 189 223 266 362         | 73 150 194 263 309+C 315+C 489 523-524d 750 752          | 16013-16569/1-806      | -                                     |
| HNS22-618           | D5a             | 092 164 172 182C 183C 189 223 266 317 362 | 73 150 263 309+C 315+C 489 523-524d 750 752              | 16013-16569/1-806      | -                                     |
| HNS22-644           | D5a             | 164 172 182C 183C 189 223 266 362 519     | 73 150 263 309+C 489 523-524d 750 752                    | 16013-16569/1-869      | -                                     |
| HNS22-671           | D5a             | 164 182C 183C 189 223 266 362             | 73 150 204 207 263 309d 315+C 489 523-524d 573+C 750 752 | 16013-16569/1-869      | -                                     |
| HNS22-724           | D5a             | 092 164 172 182C 183C 189 223 266 362     | 73 150 263 315+C 489 523-524d 750 752                    | 16013-16569/1-826      | -                                     |
| HNS22-782           | D5a             | 092 164 172 182C 183C 189 223 266 362 519 | 73 150 263 315+C 489 523-524d 750 752                    | 16013-16569/1-873      | -                                     |
| HN-SZ725            | D5a             | 164 172 182C 183C 189 223 266 362         | 16T 73 150 263 315+C 489 523-524d 750 752                | 16013-16569/1-921      | -                                     |
| HN-SZ421            | D5a             | 164 172 182C 183C 189 223 266 362         | 73 150 194 263 309+C 315+C 489 523-524d 750 752          | 16041-16569/1-921      | -                                     |
| HN-SZ744            | D5a             | 164 172 182C 183C 189 223 266 362 497 519 | 73 150 263 315+C 489 523-524d 750 752                    | 16013-16569/1-921      | -                                     |
| HN-SZ494            | D5a             | 164 172 182C 183C 189 223 362             | 73 150 263 309+C 315+C 489 523-524d 750 752 756          | 16043-16569/1-921      | -                                     |
| HN-SZ196            | D5a             | 164 182C 183C 189 223 266 311 362         | 73 150 263 315+C 489 523-524d 750 752                    | 16014-16569/1-795      | -                                     |
| HN-SZ68             | D5a             | 164 182C 183C 189 223 266 362             | 73 150 207 263 309+2C 315+C 316 489 523-524d 750 752     | 16017-16569/1-921      | -                                     |
| HN-SZ32             | D5a             | 164 182C 183C 189 223 266 362             | 73 150 207 263 309+2C 315+C 489 523-524d 750 752         | 16043-16569/1-921      | -                                     |
| HN-SZ414            | D5a             | 164 182C 183C 189 266 362 519             | 73 150 263 309+2C 315+C 489 523-524d 739 750 752         | 16032-16569/1-921      | -                                     |
| HN-SZ145            | D5a             | 172 182C 183C 189 223 362                 | 73 150 263 309+C 315+C 489 523-524d 750 752              | 16013-16569/1-921      | -                                     |
| HN-SZ58             | D5a             | 182C 183C 189 223 266 362                 | 73 150 214 263 315+C 489 523-524d 750 752                | 16032-16569/1-921      | -                                     |
| HN-SZ615            | D5a             | 182C 183C 189 223 360 362                 | 73 146 150 263 309+2C 315+C 489 750 752                  | 16042-16569/1-921      | -                                     |
| HN-SZ140            | D5a             | 182C 183C 189 223 360 362                 | 73 146 150 263 315+C 489 750 752                         | 16032-16569/1-754      | -                                     |
| HN-SZ409            | D5a             | 092 164 172 182C 183C 189 223 266 362 519 | 73 150 263 315+C 489 523-524d 750 752                    | 16047-16569/1-921      | -                                     |
| HN-SZ73             | D5a             | 092 164 172 182C 183C 189 227+A 256 362   | 73 150 263 315+C 489 523-524d 750 752                    | 16055-16569/1-921      | -                                     |
| HN-SZ768            | D5a             | 092 164 182C 183C 189 223 264 266 356 362 | 73 150 189 263 315+C 489 523-524d 750 752                | 16012-16569/1-921      | -                                     |
| HN-SZ731            | D5a             | 092 164 182C 183C 189 223 362             | 73 146 150 214 263 309+C 315+C 489 523-524d 750 752      | 16013-16569/1-921      | -                                     |
| HNS22-413           | D5b             | 092 183C 189 223 311 362                  | 73 150 263 315+C 456 489 681 750                         | 16012-16569/1-782      | -                                     |
| HNS22-475           | D5b             | 183C 189 223 362                          | 73 146 150 263 309+C 315+C 456 489 593 681 750           | 16012-16569/1-908      | -                                     |
| HNS22-482           | D5b             | 051 183C 189 222 264 362                  | 73 150 228 263 309+C 456 489 681 750                     | 16012-16569/1-873      | -                                     |
| HNS22-625           | D5b             | 183C 189 223 362 519                      | 73 150 263 309+C 315+C 456 489 681 750                   | 16013-16569/1-806      | -                                     |
| HNS22-628           | D5b             | 148 183C 189 362 519                      | 73 150 152 185 263 309+2C 315+C 456 489 523-524d 681 750 | 16013-16569/1-753      | -                                     |
| HNS22-651           | D5b             | 183C 189 223 388 362 519                  | 73 150 263 309+2C 315+C 456 489 545 681 750              | 16013-16569/1-872      | -                                     |
| HNS22-735           | D5b             | 182C 183C 189 223 273 362                 | 73 150 263 309+C 315+C 456 489 681 750                   | 16013-16569/1-828      | -                                     |
| HNS22-830           | D5b             | 092 148 182C 183C 189 362 519             | 73 150 152 185 195 263 315+C 456 489 523-524d 681 750    | 16013-16569/1-806      | -                                     |
| HN-SZ250            | D5b             | 178 183C 189 223 311 362                  | 73 150 185 263 315+C 456 489 681 750                     | 16024-16569/1-921      | -                                     |
| HN-SZ577            | D5b             | 182C 183C 189 223 273 362                 | 73 150 152 196 263 309+C 315+C 456 489 681 750           | 16012-16569/1-921      | -                                     |
| HN-SZ694            | D5b             | 182C 183C 189 223 273 362                 | 73 150 263 309+C 315+C 456 489 681 750                   | 16013-16569/1-921      | -                                     |
| HN-SZ611            | D5b             | 183C 189 223 311                          | 73 150 263 309+C 315+C 456 489 681 750                   | 16008-16569/1-921      | -                                     |
| HN-SZ114            | D5b             | 183C 189 223 357 362 519                  | 73 150 263 309+C 315+C 456 489 681 750                   | 16017-16569/1-921      | -                                     |
| HN-SZ476            | D5b             | 183C 189 223 362                          | 60 73 146 150 152 263 309+C 315+C 456 489 681 750        | 16017-16569/1-911      | -                                     |
| HN-SZ642            | D5b             | 184A 189 223 362 519                      | 73 150 263 315+C 456 489 681 750                         | 16009-16569/1-921      | -                                     |
| HN-SZ691            | D5b             | 189 194C 195 223 362                      | 73 150 263 309+C 315+C 456 489 681 750                   | 16012-16569/1-921      | -                                     |
| HN-SZ717            | D5b             | 189 223 362 519                           | 73 150 152 263 309+2C 315+C 456 489 681 750              | 16009-16569/1-921      | -                                     |
| HN-SZ377            | D5b             | 189 223 362 519                           | 73 150 263 309+2C 315+C 456 489 524+AC 681 750           | 16012-16569/1-921      | -                                     |
| HN-SZ440            | D5b             | 189 223 362 519                           | 73 150 309+C 315+C 456 489 681 750                       | 16012-16569/1-911      | -                                     |
| HN-SZ79             | D5b             | 189 223 362 519                           | 73 150 309+C 315+C 456 489 681 750                       | 16017-16569/1-921      | -                                     |
| HN-SZ531            | D5b             | 189n 223 362 519                          | 73 150 309+C 315+C 456 489 524+AC 681 750 769            | 16037-16569/1-854      | -                                     |
| HN-SZ451            | D5b             | 051 183C 189 192 223 264 362              | 73 150 228 263 315+C 456 489 681 750                     | 16008-16569/1-921      | -                                     |
| HN-SZ743            | D5b             | 091 167 189 213 223 362                   | 73 150 263 309+C 315+C 456 489 681 750                   | 16013-16569/1-921      | -                                     |
| HN-SZ61             | D5b             | 092 148 182C 183C 189 362 519             | 73 150 152 185 195 263 315+C 456 489 523-524d 681 750    | 16013-16569/1-921      | -                                     |
| HN-SZ583            | D5b             | 093 189 223 362 519                       | 73 146 150 263 309+C 315+C 456 489 681 750               | 16013-16569/1-911      | -                                     |
| HN-SZ598            | D5c             | 189 362 390 519                           | 73 146 150 151 152 182 217 263 309+C 315+C 489 750       | 16009-16569/1-921      | -                                     |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>   | Region 2 <sup>b</sup>                                  | Coverage <sup>c</sup> | 5176 A/Ia/ <sup>d</sup> | 8281-8-289d | 8718 | 12406 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|----------------------------------|--|-----------------------|-------------------------|-------------|------|-------|---------------------------------------|
| HN-SZ742            | D5c        | 051 189 223 240 320 362 390      | 73 146 150 151 152 263 309+C 315+C 489 750             | 16013-16569/1-921     |                         |             |      |       |                                       |
| HN-SZ248            | D6c        | 189 223 243 311 362              | 73 152 239 263 309+C 315+C 489 709 750                 | 16087-16569/1-856     | -                       |             |      |       |                                       |
| HNSZ2-679           | E          | 051 129 185 223 362 390          | 73 195 263 315+C 489 750                               | 16013-16569/1-836     |                         |             |      |       |                                       |
| HN-SZ134            | E          | 185 223 362 390                  | 73 195 263 315+C 489 750                               | 16090-16569/1-842     |                         |             |      |       |                                       |
| HN-SZ99             | F          | 304                              | 73 195 249d 263 309+C 315+C 750                        | 16017-16569/1-921     |                         |             |      |       |                                       |
| HN-SZ278            | F          | 304                              | 73 249d 263 315+C 318 750                              | 16027-16569/1-921     |                         |             |      |       |                                       |
| HN-SZ584            | F          | 304                              | 73 249d 263 315+C 750 761                              | 16011-16569/1-921     |                         |             |      |       |                                       |
| HN-SZ373            | F          | 187 207 304 519                  | 73 146 207 249d 263 291d 309+2C 315+C 750              | 16021-16569/1-921     |                         |             |      |       |                                       |
| HN-SZ570            | F          | 299 304                          | 73 249d 263 309+C 315+C 750                            | 16039-16569/1-911     |                         |             |      |       |                                       |
| HN-SZ678            | F          | 304 463T 519                     | 73 146h 249d 263 309+C 315+C 523-524d 573+4C 750       | 16013-16569/1-805     |                         |             |      |       |                                       |
| HNSZ2-401           | F1         | 129 162 172 304 497 519 527      | 73 249d 263 309+C 315+C 523-524d 750                   | 16022-16569/1-806     |                         |             |      |       |                                       |
| HNSZ2-404           | F1         | 129 162 172 304 362 399 519      | 73 249d 263 315+C 523-524d 750                         | 16013-16569/1-873     |                         |             |      |       |                                       |
| HNSZ2-411           | F1         | 129 162 172 304 497 519          | 73 249d 263 315+C 385 523-524d 548 750                 | 16012-16569/1-873     |                         |             |      |       |                                       |
| HNSZ2-426           | F1         | 172 304 519                      | 73 249d 263 315+C 523-524d 750                         | 16013-16569/1-872     |                         |             |      |       |                                       |
| HNSZ2-429           | F1         | 129 172 304 519                  | 73 249d 263 315+C 523-524d 750                         | 16013-16569/1-871     |                         |             |      |       |                                       |
| HNSZ2-435           | F1         | 183C 189 300 304 519             | 73 150 195 249d 263 309+C 315+C 523-524d 750           | 16012-16569/1-806     |                         |             |      |       | 12060-12760=12406                     |
| HNSZ2-457           | F1         | 042 051 183C 189 292 300 304 519 | 73 146 150 195 234 249d 263 309+C 315+C 523-524d 750   | 16012-16569/1-836     |                         |             |      |       | 12060-12760=12406                     |
| HNSZ2-473           | F1         | 111 129 266 304 357 519          | 73 152 204 249d 263 309+C 315+C 523-524d 709 750       | 16013-16569/1-881     |                         |             |      |       |                                       |
| HNSZ2-474           | F1         | 129 162 172 304 335 519          | 73 249d 251 263 315+C 523-524d 750                     | 16013-16569/1-873     |                         |             |      |       |                                       |
| HNSZ2-487           | F1         | 129 162 172 304 399 519          | 73 146 249d 263 315+C 523-524d 750                     | 16013-16569/1-836     |                         |             |      |       |                                       |
| HNSZ2-491           | F1         | 129 162 172 304 519              | 73 94 249d 263 309+C 315+C 523-524d 750                | 16013-16569/1-836     |                         |             |      |       |                                       |
| HNSZ2-499           | F1         | 129 172 304                      | 73 249d 263 315+C 523-524d 750                         | 16013-16569/1-836     |                         |             |      |       |                                       |
| HNSZ2-502           | F1         | 129 162 172 207 304 519          | 73 249d 263 315+C 2C 523-524d 548 750                  | 16013-16569/1-836     |                         |             |      |       |                                       |
| HNSZ2-509           | F1         | 129 172 304 311 519              | 73 249d 263 309+C 315+C 523-524d 750                   | 16013-16569/1-806     |                         |             |      |       |                                       |
| HNSZ2-512           | F1         | 108 129 162 172 304 519          | 73 152 199 249d 263 315+C 523-524d 750                 | 16013-16569/1-783     |                         |             |      |       |                                       |
| HNSZ2-516           | F1         | 129 183C 189 304 519             | 73 249d 263 309+C 315+C 523-524d 750                   | 16013-16569/1-827     |                         |             |      |       |                                       |
| HNSZ2-518           | F1         | 129 162 172 304 399 519          | 73 195h 249d 263 309+C 315+C 523-524d 750              | 16021-16569/1-806     |                         |             |      |       |                                       |
| HNSZ2-549           | F1         | 172 183C 189 245 304 519         | 73 249d 263 309+2C 315+C 523-524d                      | 16013-16569/1-725     |                         |             |      |       |                                       |
| HNSZ2-569           | F1         | 108 129 145 162 172 187 304 519  | 73 150 249d 263 315+C 523-524d 750                     | 16013-16569/1-826     |                         |             |      |       |                                       |
| HNSZ2-574           | F1         | 108 129 162 172 214 304 519      | 73 249d 263 315+C 523-524d 750                         | 16013-16569/1-845     |                         |             |      |       |                                       |
| HNSZ2-579           | F1         | 183C 189 232A 249 304 519        | 73 146 152 249d 263 309+C 315+C 523-524d 750           | 16013-16569/1-873     |                         |             |      |       |                                       |
| HNSZ2-582           | F1         | 108 129 162 172 304 519          | 73 249d 263 315+C 480 523-524d 750                     | 16013-16569/1-826     |                         |             |      |       |                                       |
| HNSZ2-587           | F1         | 129 162 172 304 497 519          | 73 249d 263 315+C 523-524d 750                         | 16013-16569/1-836     |                         |             |      |       |                                       |
| HNSZ2-605           | F1         | 129 172 304 519                  | 73 249d 263 315+C 523-524d 750                         | 16013-16569/1-865     |                         |             |      |       |                                       |
| HNSZ2-607           | F1         | 129 162 172 304 519              | 73 249d 263 309+C 315+C 523-524d 750                   | 16013-16569/1-873     |                         |             |      |       |                                       |
| HNSZ2-621           | F1         | 093 183C 189 304 519             | 73 249d 263 315+C 523-524d 750                         | 16013-16569/1-836     |                         |             |      |       | 12060-12760=12406                     |
| HNSZ2-629           | F1         | 183C 189 278 304 357 519         | 73 186 249d 263 309+C 315+C 523-524d 750               | 16013-16569/1-908     |                         |             |      |       |                                       |
| HNSZ2-630           | F1         | 129 172 260 295 304 519          | 73 150 249d 263 315+C 523-524d 750                     | 16013-16569/1-806     |                         |             |      |       |                                       |
| HNSZ2-634           | F1         | 108 129 162 172 214 304 519      | 73 249d 263 315+C 523-524d 750                         | 16013-16569/1-872     |                         |             |      |       |                                       |
| HNSZ2-642           | F1         | 108 129 162 172 304 311 519      | 73 152 199 249d 263 315+C 523-524d 750                 | 16013-16569/1-806     |                         |             |      |       |                                       |
| HNSZ2-658           | F1         | 129 172 304 519                  | 53 54C 71d 73 249d 263 315+C 318 385 523-524d 750      | 16013-16569/1-841     |                         |             |      |       |                                       |
| HNSZ2-675           | F1         | 129 172 294 304 519              | 53 54T 71d 73 249d 263 315+C 318 523-524d 750          | 16013-16569/1-783     |                         |             |      |       |                                       |
| HNSZ2-683           | F1         | 183C 189 284 304 519             | 73 146 249d 263 309+C 315+C 523-524d 750               | 16013-16569/1-806     |                         |             |      |       | 12060-12760=12406                     |
| HNSZ2-690           | F1         | 108 129 162 172 256 362 519 527  | 73 143 249d 263 315+C 523-524d 750                     | 16013-16569/1-806     |                         |             |      |       |                                       |
| HNSZ2-698           | F1         | 129 172 304 519                  | 52 53 54T 71d 73 249d 263 309+C 315+C 318 523-524d     | 16013-16569/1-717     |                         |             |      |       |                                       |
| HNSZ2-717           | F1         | 108 129 162 172 304 311 519      | 73 249d 263 315+C 523-524d 750                         | 16013-16569/1-865     |                         |             |      |       |                                       |
| HNSZ2-721           | F1         | 172 218 304 311                  | 73 249d 263 315+C 573+4C                               | 16013-16569/1-573     |                         |             |      |       |                                       |
| HNSZ2-723           | F1         | 108 129 162 172 270 304 355 519  | 73 249d 263 315+C 523-524d 750                         | 16013-16569/1-872     |                         |             |      |       |                                       |
| HNSZ2-745           | F1         | 129 172 304 519                  | 73 249d 263 309+2C 315+C 521-524d 750                  | 16013-16569/1-806     |                         |             |      |       |                                       |
| HNSZ2-751           | F1         | 172 304 465 519                  | 73 249d 263 315+C 750                                  | 16013-16569/1-872     |                         |             |      |       |                                       |
| HNSZ2-752           | F1         | 129 172 304 519                  | 73 249d 263 309+2C 315+C 523-524d 750                  | 16013-16569/1-910     |                         |             |      |       |                                       |
| HNSZ2-760           | F1         | 108 129 162 172 284 292 304 519  | 73 152 195 249d 263 315+C 523-524d 750                 | 16013-16569/1-873     |                         |             |      |       |                                       |
| HNSZ2-769           | F1         | 129 162 172 304 519              | 73 195 249d 263 315+C 523-524d 750                     | 16013-16569/1-836     |                         |             |      |       |                                       |
| HNSZ2-777           | F1         | 129 172 293 304 519              | 73 249d 315+C 523-524d 750                             | 16013-16569/1-873     |                         |             |      |       |                                       |
| HNSZ2-780           | F1         | 129 162 172 304 399 519          | 73 249d 263 309+C 315+C 523-524d 750                   | 16013-16569/1-851     |                         |             |      |       |                                       |
| HNSZ2-797           | F1         | 172 304 519                      | 73 249d 263 309+C 315+C 523-524d 750                   | 16013-16569/1-806     |                         |             |      |       |                                       |
| HNSZ2-803           | F1         | 129 169 172 294 304 519          | 73 249d 263 309+C 315+C 521-524d 750                   | 16013-16569/1-851     |                         |             |      |       |                                       |
| HNSZ2-809           | F1         | 104 129 172 304 519              | 73 249d 263 309+C 315+C 521-524d 750                   | 16013-16569/1-806     |                         |             |      |       |                                       |
| HNSZ2-812           | F1         | 108 129 162 172 304 519          | 73 150 249d 263 309+C 315+C 523-524d 750               | 16013-16569/1-908     |                         |             |      |       |                                       |
| HNSZ2-828           | F1         | 129 162 172 304 399 519          | 73 249d 263 309+C 315+C 523-524d 750                   | 16013-16569/1-841     |                         |             |      |       |                                       |
| HN-SZ354            | F1         | 129 172 221 304 438 519          | 73 249d 263 309+C 315+C 523-524d 750                   | 16042-16569/1-921     |                         |             |      |       |                                       |
| HN-SZ298            | F1         | 129 172 242 304 519              | 52 53 54C 71d 73 249d 263 309+C 315+C 318 523-524d 750 | 16042-16569/1-921     |                         |             |      |       |                                       |
| HN-SZ681            | F1         | 129 172 242 304 519              | 52 53 54C 71d 73 249d 263 309+C 315+C 318 523-524d 750 | 16044-16569/1-921     |                         |             |      |       |                                       |
| HN-SZ168            | F1         | 129 172 294 304 311 362 519      | 73 152 249d 263 309+C 315+C 521-524d 750               | 16048-16569/1-806     |                         |             |      |       |                                       |
| HN-SZ6              | F1         | 129 172 294 304 362 519          | 73 152 249d 263 309+C 315+C 521-524d 750               | 16016-16569/1-911     |                         |             |      |       |                                       |
| HN-SZ15             | F1         | 129 172 304 311 362 519          | 73 152 249d 263 309+C 315+C 521-524d 750               | 16033-16569/1-921     |                         |             |      |       |                                       |
| HN-SZ211            | F1         | 129 172 304 311 362 519          | 73 152 249d 263 309+C 315+C 521-524d 750               | 16015-16569/1-878     |                         |             |      |       |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>             | Region 2 <sup>b</sup>                                    | Coverage <sup>c</sup>  | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|--|--|------------------------|---------------------------------------|
|                     |            |  |  | 5176_A/tu <sup>d</sup> |                                       |
| HN-SZ149            | F1         | 129 172 304 311 519                        | 73 249d 263 309+C 315+C 523-524d 750                     | 16042-16569/1-921      |                                       |
| HN-SZ419            | F1         | 129 172 304 519                            | 53 54C 71d 73 249d 263 309+2C 315+C 318 385 523-524d 750 | 16047-16569/1-921      |                                       |
| HN-SZ160            | F1         | 129 172 304 519                            | 73 215 249d 263 309+C 315+C 523-524d 750                 | 16032-16569/1-921      |                                       |
| HN-SZ232            | F1         | 129 172 304 519                            | 73 249d 263 309+C 315+C 523-524d 750                     | 16042-16569/1-921      |                                       |
| HN-SZ765            | F1         | 129 172 304 519                            | 73 249d 263 315+C 523-524d 709 750                       | 16013-16569/1-921      |                                       |
| HN-SZ176            | F1         | 129 172 304 519                            | 73 249d 263 315+C 523-524d 750                           | 16044-16569/1-921      |                                       |
| HN-SZ194            | F1         | 129 172 304 519                            | 73 249d 263 315+C 523-524d 750                           | 16032-16569/1-921      |                                       |
| HN-SZ282            | F1         | 129 172 304 519                            | 73 249d 263 315+C 523-524d 750                           | 16080-16569/1-921      |                                       |
| HN-SZ502            | F1         | 129 172 304 519                            | 73 249d 263 315+C 523-524d 750                           | 16043-16569/1-921      |                                       |
| HN-SZ205            | F1         | 129 172 304 519 527                        | 73 249d 263 309+C 315+C 523-524d 750                     | 16012-16569/1-921      |                                       |
| HN-SZ732            | F1         | 129 172 519                                | 73 249d 263 309+C 315+C 521-524d 750                     | 16013-16569/1-921      |                                       |
| HN-SZ55             | F1         | 172 304                                    | 73 249d 263 315+C 523-524d 750                           | 16018-16569/1-921      |                                       |
| HN-SZ321            | F1         | 172 304 519                                | 73 146h 249d 263 315+C 523-524d 750                      | 16043-16569/1-911      |                                       |
| HN-SZ656            | F1         | 172 304 519                                | 73 200 249d 263 309+C 315+C 523-524d 750                 | 16009-16569/1-921      |                                       |
| HN-SZ384            | F1         | 092 129 172 257A 304 519                   | 53 54T 71d 73 249d 263 309+C 315+C 318 523-524d 750      | 16033-16569/1-921      |                                       |
| HN-SZ564            | F1         | 129 162 172 243 304 519                    | 73 151 249d 263 315+C 509 523-524d 750                   | 16025-16569/1-921      |                                       |
| HN-SZ649            | F1         | 129 162 172 287 304 399 519                | 73 152 249d 263 315+C 523-524d 750                       | 16010-16569/1-870      |                                       |
| HN-SZ763            | F1         | 129 162 172 287 304 399 519                | 73 249d 263 309+C 315+C 523-524d 750                     | 16013-16569/1-921      |                                       |
| HN-SZ335            | F1         | 129 162 172 292 304 519                    | 73 146 152 249d 263 315+C 523-524d 750                   | 16013-16569/1-911      |                                       |
| HN-SZ259            | F1         | 129 162 172 304 311                        | 73 249d 263 315+C 523-524d 750                           | 16018-16569/1-921      |                                       |
| HN-SZ515            | F1         | 129 162 172 304 311 519                    | 73 152 249d 263 315+C 477 523-524d 750                   | 16065-16569/1-921      |                                       |
| HN-SZ30             | F1         | 129 162 172 304 311 519                    | 73 200 249d 263 315+C 523-524d 750                       | 16024-16569/1-921      |                                       |
| HN-SZ562            | F1         | 129 162 172 304 311 519                    | 73 200 249d 263 315+C 523-524d 750                       | 16045-16569/1-921      |                                       |
| HN-SZ413            | F1         | 129 162 172 304 399 519                    | 73 146 249d 263 315+C 523-524d 750                       | 16018-16569/1-921      |                                       |
| HN-SZ238            | F1         | 129 162 172 304 399 519                    | 73 195 249d 263 309+C 315+C 523-524d 750                 | 16033-16569/1-921      |                                       |
| HN-SZ46             | F1         | 129 162 172 304 399 519                    | 73 249d 263 315+C 372 523-524d 750                       | 16032-16569/1-921      |                                       |
| HN-SZ34             | F1         | 129 162 172 304 399 519                    | 73 249d 263 315+C 523-524d 750                           | 16033-16569/1-757      |                                       |
| HN-SZ178            | F1         | 129 162 172 304 497                        | 56+C 73 150 189 249d 263 309+C 315+C 523-524d 750        | 16017-16569/1-921      |                                       |
| HN-SZ97             | F1         | 129 162 172 304 497                        | 73 249d 263 315+C 523-524d 750                           | 16055-16569/1-921      |                                       |
| HN-SZ402            | F1         | 129 162 172 304 497 519 527                | 73 249d 263 309+C 315+C 523-524d 750                     | 16058-16569/1-921      |                                       |
| HN-SZ453            | F1         | 129 162 172 304 519                        | 73 195 249d 263 315+C 523-524d 593 750                   | 16012-16569/1-921      |                                       |
| HN-SZ25             | F1         | 129 162 172 304 519                        | 73 249d 263 309+C 315+C 523-524d 750                     | 16013-16569/1-921      |                                       |
| HN-SZ244            | F1         | 129 162 172 304 519                        | 73 249d 263 309+C 315+C 523-524d 750                     | 16027-16569/1-921      |                                       |
| HN-SZ251            | F1         | 129 162 172 304 519                        | 73 249d 263 315+C 523-524d 750                           | 16017-16569/1-921      |                                       |
| HN-SZ336            | F1         | 129 162 172 304 519                        | 73 249d 263 315+C 523-524d 750                           | 16043-16569/1-911      |                                       |
| HN-SZ445            | F1         | 129 162 172 304 519                        | 73 94 249d 263 309+C 315+C 523-524d 750                  | 16013-16569/1-921      |                                       |
| HN-SZ463            | F1         | 129 162 172 304 519                        | 73 94 249d 263 309+C 315+C 523-524d 750                  | 16023-16569/1-911      |                                       |
| HN-SZ510            | F1         | 129 162 172 304 519                        | 73 94 249d 263 309+C 315+C 523-524d 750                  | 16084-16569/1-921      |                                       |
| HN-SZ83             | F1         | 162 172 266h 304 519                       | 73 249d 263 309+C 315+C 523-524d 750                     | 16046-16569/1-921      |                                       |
| HN-SZ93             | F1         | 093 129 162 172 186 193 242 243 304 519    | 73 151 200 228 249d 263 315+C 523-524d 750               | 16047-16569/1-921      |                                       |
| HN-SZ242            | F1         | 108 111 129 162 172 304 519                | 73 150 195 249d 263 315+C 523-524d 750                   | 16027-16569/1-819      |                                       |
| HN-SZ389            | F1         | 108 111 129 162 172 304 519                | 73 150 195 249d 263 315+C 523-524d 750                   | 16018-16569/1-921      |                                       |
| HN-SZ426            | F1         | 108 129 162 172 214 304 519                | 73 249d 263 315+C 523-524d 750                           | 16027-16569/1-921      |                                       |
| HN-SZ466            | F1         | 108 129 162 172 256 362 519 527            | 73 143 249d 263 315+C 523-524d 750                       | 16032-16569/1-911      |                                       |
| HN-SZ644            | F1         | 108 129 162 172 304                        | 73 150 249d 263 315+C 523-524d 750                       | 16009-16569/1-921      |                                       |
| HN-SZ425            | F1         | 108 129 162 172 304 311 519                | 73 152 199 249d 263 315+C 523-524d 750                   | 16033-16569/1-921      |                                       |
| HN-SZ219            | F1         | 108 129 162 172 304 311 519                | 73 249d 263 315+C 523-524d 750                           | 16024-16569/1-921      |                                       |
| HN-SZ433            | F1         | 108 129 162 172 304 519                    | 73 150 249d 263 309+C 315+C 523-524d 750                 | 16033-16569/1-921      |                                       |
| HN-SZ183            | F1         | 108 129 162 172 304 519                    | 73 150 249d 263 315+C 523-524d 750                       | 16012-16569/1-921      |                                       |
| HN-SZ337            | F1         | 108 129 162 172 304 519                    | 73 150 249d 263 315+C 523-524d 750                       | 16071-16569/1-921      |                                       |
| HN-SZ571            | F1         | 108 129 162 172 304 519                    | 73 152 199 249d 263 315+C 523-524d 750                   | 16047-16569/1-921      |                                       |
| HN-SZ653            | F1         | 108 129 162 172 304 519                    | 73 195 249d 263 309+C 315+C 523-524d 750                 | 16031-16569/1-921      |                                       |
| HN-SZ449            | F1         | 108 129 162 172 304 519                    | 73 249d 263 315+C 523-524d 750                           | 16012-16569/1-921      |                                       |
| HN-SZ714            | F1         | 108 129 162 172 304 519                    | 73 249d 263 315+C 523-524d 750                           | 16013-16569/1-921      |                                       |
| HN-SZ752            | F1         | 108 129 162 172 304 519                    | 73 249d 263 315+C 523-524d 750                           | 16013-16569/1-810      |                                       |
| HN-SZ739            | F1         | 129 162 169 172 304 311 519                | 73 249d 263 315+C 523-524d 548 750                       | 16013-16569/1-921      |                                       |
| HN-SZ86             | F1         | 129 162 172 207 304 519                    | 73 249d 263 315+C 523-524d 548 750                       | 16013-16569/1-921      |                                       |
| HN-SZ405            | F1         | 129 162 172 304 497 519                    | 73 249d 263 315+C 385 523-524d 548 750                   | 16042-16569/1-921      |                                       |
| HN-SZ112            | F1         | 129 162 172 304 519                        | 73 227 249d 263 315+C 523-524d 548 750                   | 16013-16569/1-858      |                                       |
| HN-SZ233            | F1         | 129 162 172 304 519                        | 73 249d 263 309+C 315+C 523-524d 548 750                 | 16013-16569/1-833      |                                       |
| HN-SZ135            | F1         | 129 162 172 304 519                        | 73 249d 263 315+C 523-524d 548 750                       | 16083-16569/1-921      |                                       |
| HN-SZ195            | F1         | 129 162 172 304 519                        | 73 249d 263 315+C 523-524d 548 750                       | 16015-16569/1-921      |                                       |
| HN-SZ646            | F1         | 172 304 465 519                            | 73 249d 263 315+C 750                                    | 16007-16569/1-911      |                                       |
| HN-SZ357            | F1         | 129 304 519                                | 73 152 234 249d 263 309+C 315+C 523-524d 750             | 16033-16569/1-921      |                                       |
| HN-SZ444            | F1         | 129 304 519                                | 73 152 249d 263 315+C 523-524d 750                       | 16017-16569/1-921      |                                       |
| HN-SZ202            | F1         | 129 182C 183C 189 232A 249 304 311 344 519 | 73 152 249d 263 309+C 315+C 523-524d 750                 | 16060-16569/1-921      |                                       |
| HN-SZ745            | F1         | 182C 183C 189 194C 195 232A 304 519        | 73 152 249d 263 309d 315+C 318 523-524d 750              | 16013-16569/1-921      |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>      | Region 2 <sup>b</sup>                            | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281-8-289d | 8718 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|-------------------------------------|--|-----------------------|------------------------|-------------|------|---------------------------------------|
| HN-SZ484            | F1         | 182C 183C 189 232A 249 304 311 519  | 73 204 249d 263 309+C 315+C 523-524d 750         | 16023-16569/1-911     |                        |             |      |                                       |
| HN-SZ65             | F1         | 153 183C 189 278 300 304 357 519    | 73 249d 263 309+C 315+C 523-524d 750             | 16086-16569/1-921     |                        |             |      |                                       |
| HN-SZ471            | F1         | 182C 183C 189 304 519               | 73 249d 263 309+C 315+C 523-524d 573+4C 750      | 16001-16569/1-870     |                        |             |      |                                       |
| HN-SZ289            | F1         | 183C 189 234 242 304 519            | 73 195 249d 263 309+C 315+C 523-524d 750         | 16030-16569/1-921     |                        |             |      |                                       |
| HN-SZ303            | F1         | 183C 189 278 519                    | 73 150 249d 263 275 309+C 315+C 523-524d 750     | 16027-16569/1-921     |                        |             |      | A C A 12618; 7900-8650=rCRS           |
| HN-SZ496            | F1         | 183C 189 304 519                    | 73 249d 263 309+C 315+C 523-524d 750             | 16050-16569/1-921     |                        |             |      |                                       |
| HN-SZ544            | F1         | 183C 189 304 519                    | 73 249d 263 309+C 315+C 523-524d 750             | 16009-16569/1-911     |                        |             |      |                                       |
| HN-SZ641            | F1         | 183C 189 304 519                    | 73 249d 263 315+C 523-524d 750                   | 16010-16569/1-758     |                        |             |      |                                       |
| HN-SZ344            | F1         | 093 183C 189 304 390 519            | 73 249d 263 315+C 523-524d 750                   | 16062-16569/1-921     |                        |             |      |                                       |
| HN-SZ133            | F1         | 093 189 287 304 311 519             | 73 150 249d 263 309+C 315+C 523-524d 750         | 16033-16569/1-921     |                        |             |      |                                       |
| HN-SZ111            | F1         | 111 129 266 304 519                 | 73 152 249d 263 309+C 315+C 523-524d 750         | 16047-16569/1-921     |                        |             |      |                                       |
| HN-SZ524            | F1         | 111 129 266 304 519                 | 73 152 249d 263 309+C 315+C 523-524d 750         | 16043-16569/1-921     |                        |             |      |                                       |
| HN-SZ774            | F1         | 111 129 266 304 519                 | 73 152 249d 263 309+C 315+C 523-524d 750         | 16015-16569/1-921     |                        |             |      |                                       |
| HN-SZ2              | F1         | 111 129 304 519                     | 73 151 152 234 249d 263 309+C 315+C 523-524d 750 | 16031-16569/1-911     |                        |             |      |                                       |
| HN-SZ613            | F1         | 111 129 304 519                     | 73 151 152 234 249d 263 309+C 315+C 523-524d 750 | 16008-16569/1-921     |                        |             |      |                                       |
| HN-SZ682            | F1         | 051 111 129 266 304 519             | 73 152 200 249d 263 309+C 315+C 523-524d 709 750 | 16012-16569/1-849     |                        |             |      |                                       |
| HN-SZ272            | F1         | 126 189 207 304 362 399             | 73 146 249d 263 309+C 315+C 317A 750             | 16012-16569/1-921     |                        |             |      |                                       |
| HN-SZ157            | F1         | 189 304 519                         | 73 146 249d 263 315+C 523-524d 546 750           | 16023-16569/1-921     |                        |             |      |                                       |
| HN-SZ483            | F1         | 182C 183C 189 304 355 519           | 73 249d 263 309+C 315+C 523-524d 573 750         | 16021-16569/1-911     |                        |             |      |                                       |
| HN-SZ447            | F1         | 183C 189 304 355 519                | 73 151 238 249d 263 309+C 315+C 523-524d 750     | 16015-16569/1-911     |                        |             |      |                                       |
| HNSZ2-412           | F2         | 311                                 | 73 235 249d 263 309+C 315+C 750                  | 16012-16569/1-872     |                        |             |      | 12060-12760=12338                     |
| HNSZ2-428           | F2         | rCRS                                | 73 235 249d 263 315+C 750                        | 16013-16569/1-836     |                        |             |      |                                       |
| HNSZ2-444           | F2         | 111A 203 291 304 311 519            | 73 249d 263 315+C 750                            | 16013-16569/1-836     |                        |             |      |                                       |
| HNSZ2-525           | F2         | rCRS                                | 73 235 249d 263 309+C 315+C 750                  | 16013-16569/1-873     |                        |             |      |                                       |
| HNSZ2-565           | F2         | 066 203 291 304 311 335 519         | 73 249d 263 309+C 315+C 750                      | 16013-16569/1-908     |                        |             |      |                                       |
| HNSZ2-583           | F2         | 092A 291 304                        | 73 249d 263 309+C 315+C 337 523-524d 750         | 16013-16569/1-806     |                        |             |      |                                       |
| HNSZ2-585           | F2         | 304 311                             | 73 200 249d 263 315+C 750                        | 16013-16569/1-865     |                        |             |      | 12060-12760=12338                     |
| HNSZ2-611           | F2         | 129 189 203 304 519                 | 73 249d 263 309+C 315+C 750                      | 16013-16569/1-806     |                        |             |      |                                       |
| HNSZ2-635           | F2         | 203 304 519                         | 73 249d 263 309+C 315+C 523-524d 750             | 16013-16569/1-859     |                        |             |      |                                       |
| HNSZ2-729           | F2         | 158 319                             | 73 152 235 249d 263 315+C 750                    | 16013-16569/1-872     |                        |             |      | 12060-12760=12338                     |
| HNSZ2-757           | F2         | 203 291 304 519                     | 73 152 228 249d 263 309+C 315+C 523-524d 750     | 16013-16569/1-889     |                        |             |      |                                       |
| HNSZ2-827           | F2         | 092A 291 304                        | 73 249d 263 315+C 523-524d 750                   | 16013-16569/1-836     |                        |             |      |                                       |
| HN-SZ45             | F2         | 291                                 | 73 152 235 249d 263 309+C 315+C 750              | 16012-16569/1-911     |                        |             |      | A C A                                 |
| HN-SZ156            | F2         | 111A 203 291 304 311 519            | 73 249d 263 315+C 750                            | 16065-16569/1-921     |                        |             |      |                                       |
| HN-SZ10             | F2         | 126 203 278h 291 304 519            | 73 249d 263 315+C 750                            | 16016-16569/1-911     |                        |             |      |                                       |
| HN-SZ245            | F2         | 129 203 304 519                     | 73 249d 263 309+C 315+C 750                      | 16009-16569/1-921     |                        |             |      |                                       |
| HN-SZ539            | F2         | 129 203 304 519                     | 73 249d 263 309+C 315+C 750                      | 16010-16569/1-911     |                        |             |      |                                       |
| HN-SZ672            | F2         | 203 291 304                         | 73 249d 263 309+C 315+C 385 750                  | 16009-16569/1-921     |                        |             |      |                                       |
| HN-SZ190            | F2         | 203 291 304 311 335 519             | 73 249d 263 309+C 315+C 750                      | 16012-16569/1-921     |                        |             |      |                                       |
| HN-SZ740            | F2         | 203 291 304 519                     | 73 249d 263 309+C 315+C 750                      | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ689            | F2         | 086 092A 291 304                    | 73 249d 263 315+C 523-524d 750                   | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ648            | F2         | 092A 291 304 311                    | 73 249d 263 315+C 523-524d 750                   | 16007-16569/1-921     |                        |             |      |                                       |
| HN-SZ18             | F2         | 093h                                | 73 235 249d 263 315+C 750                        | 16012-16569/1-911     |                        |             |      | A C A                                 |
| HN-SZ42             | F2         | rCRS                                | 73 235 249d 263 309+C 315+C 574 750              | 16042-16569/1-921     |                        |             |      | A C A                                 |
| HNSZ2-430           | F3         | 093 260 298 355 362                 | 73 207 249d 263 309+C 315+C 709 750              | 16013-16569/1-836     |                        |             |      |                                       |
| HNSZ2-458           | F3         | 111 192 249 298 355 362 390         | 73 207 249d 263 309+C 315+C 709 750              | 16013-16569/1-872     |                        |             |      |                                       |
| HNSZ2-471           | F3         | 260 298 355 362                     | 73 207 249d 263 309+C 315+C 709 750              | 16013-16569/1-845     |                        |             |      |                                       |
| HNSZ2-494           | F3         | 111 192 249 263 298 355 362 390     | 73 207 249d 263 309+C 315+C 709 750              | 16013-16569/1-826     |                        |             |      |                                       |
| HNSZ2-736           | F3         | 260 298 355 362                     | 73 207 249d 263 309+C 315+C 709 750              | 16013-16569/1-841     |                        |             |      |                                       |
| HNSZ2-742           | F3         | 260 298 355 362                     | 73 249d 263 309+C 315+C 709 750                  | 16013-16569/1-806     |                        |             |      |                                       |
| HNSZ2-754           | F3         | 093 260 278 298 355 362             | 73 207 249d 263 309+C 315+C 709 750              | 16013-16569/1-872     |                        |             |      |                                       |
| HNSZ2-773           | F3         | 260 298 355 362                     | 73 207 249d 263 309+C 315+C 709 750              | 16013-16569/1-873     |                        |             |      |                                       |
| HNSZ2-796           | F3         | 093 111 192 249 298 355 362 390     | 73 207 249d 263 309+C 315+C 709 750              | 16013-16569/1-791     |                        |             |      |                                       |
| HN-SZ252            | F3         | 298                                 | 73 249d 263 291 315+C 523-524d 750               | 16009-16569/1-921     |                        |             |      |                                       |
| HN-SZ400            | F3         | 117 129 298 355 362                 | 73 249d 263 315+C 750                            | 16065-16569/1-921     |                        |             |      |                                       |
| HN-SZ334            | F3         | 189 234 260 298 355 362             | 73 146h 207 249d 263 309+C 315+C 709 750         | 16024-16569/1-911     |                        |             |      |                                       |
| HN-SZ705            | F3         | 189 260 288G 298 355 362            | 73 207 249d 263 309+C 315+C 709 750              | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ383            | F3         | 239 260 298 355 362 526             | 73 207 249d 263 309+C 315+C 709 750              | 16011-16569/1-921     |                        |             |      |                                       |
| HN-SZ591            | F3         | 260 288G 298 355 362                | 73 207 249d 263 309+C 315+C 709 750              | 16013-16569/1-884     |                        |             |      |                                       |
| HN-SZ625            | F3         | 260 288G 298 355 362                | 73 207 249d 263 309+C 315+C 709 750              | 16009-16569/1-911     |                        |             |      |                                       |
| HN-SZ293            | F3         | 260 298 355 362                     | 73 207 249d 263 309+C 315+C 709 750              | 16016-16569/1-911     |                        |             |      |                                       |
| HN-SZ514            | F3         | 260 298 355 362                     | 73 249d 263 315+C 709 750                        | 16020-16569/1-921     |                        |             |      |                                       |
| HN-SZ360            | F3         | 069 180 260 298 355 362             | 73 207 249d 263 315+C 709 750                    | 16041-16569/1-921     |                        |             |      |                                       |
| HN-SZ534            | F3         | 093 111 192 249 263 298 355 362 390 | 73 207 249d 263 309+C 315+C 709 750              | 16009-16569/1-921     |                        |             |      |                                       |
| HN-SZ295            | F3         | 093 111 192 249 298 355 362 390     | 73 207 249d 263 309+C 315+C 709 750              | 16024-16569/1-911     |                        |             |      |                                       |
| HN-SZ551            | F3         | 093 209 298 355 362                 | 73 195 249d 263 309+C 315+C 524+AC 750           | 16012-16569/1-914     |                        |             |      |                                       |
| HN-SZ71             | F3         | 093 260 278 298 355 362             | 73 207 249d 263 309+C 315+C 709 750              | 16017-16569/1-921     |                        |             |      |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup> | Region 2 <sup>b</sup>                           | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281-8-289d | 8718 | 12406                    | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|--------------------------------|---|-----------------------|------------------------|-------------|------|--------------------------|---------------------------------------|
| HNSZ2-408           | F4         | 218 304                        | 73 249d 263 309+C 315+C 573+3C                  | 16013-16569/1-573     |                        |             |      | 12060-12760=12630        |                                       |
| HNSZ2-449           | F4         | 129 189 207 304 399            | 73 146 152 249d 263 315+C 750                   | 16012-16569/1-873     |                        |             |      | 12060-12760=12612 12630  |                                       |
| HNSZ2-557           | F4         | 179 207 304 399                | 73 146 249d 263 309+2C 315+C 524+2AC 750        | 16013-16569/1-826     |                        |             |      |                          |                                       |
| HNSZ2-650           | F4         | 129 213 218 304 311            | 73 249d 263 315+C 573+5C                        | 16013-16569/1-573     |                        |             |      |                          |                                       |
| HNSZ2-748           | F4         | 218 287 304 311                | 73 152 249d 263 315+C 368 573+4C                | 16013-16569/1-573     |                        |             |      |                          |                                       |
| HN-SZ702            | F4         | 126 207 304 362 399            | 73 146 249d 263 309+C 315+C 317A 750            | 16013-16569/1-921     |                        |             |      |                          |                                       |
| HN-SZ279            | F4         | 129 213 218 304 311            | 73 249d 263 315+C 573+3C 750                    | 16012-16569/1-863     |                        |             |      |                          |                                       |
| HN-SZ543            | F4         | 129 218 304 311 343C           | 73 152 249d 263 315+C 573+3C 750                | 16012-16569/1-911     |                        |             |      |                          |                                       |
| HN-SZ406            | F4         | 179 207 304 399                | 73 146 249d 263 309+C 315+C 524+2AC 644 750     | 16043-16569/1-921     |                        |             |      |                          |                                       |
| HN-SZ241            | F4         | 218 311                        | 73 185 249d 263 309+2C 315+C 750                | 16027-16569/1-921     |                        |             |      |                          |                                       |
| HN-SZ495            | F4         | 093 129 213 218 304 311        | 73 249d 263 309+2C 315+C 573+3C 750             | 16001-16569/1-863     |                        |             |      |                          |                                       |
| HNSZ2-448           | G          | 223 274 311 362                | 73 263 315+C 489 709 750                        | 16013-16569/1-836     | +                      |             |      | 4535-5098=4769 4833      |                                       |
| HNSZ2-529           | G          | 223 227 278 362                | 73 263 309+C 315+C 489 709 750                  | 16013-16569/1-792     |                        |             |      |                          |                                       |
| HNSZ2-534           | G          | 223 325 519                    | 73 150 263 315+C 489 709 750                    | 16013-16569/1-829     | +                      |             |      |                          |                                       |
| HNSZ2-552           | G          | 223 227 233 278 362            | 73 146 263 309+C 315+C 489 709 750              | 16013-16569/1-826     |                        |             |      |                          |                                       |
| HNSZ2-570           | G          | 223 278 311 362                | 64 73 263 309+C 315+C 489 573+3C                | 16013-16569/1-573     |                        |             |      | 4535-5098=4769 4833      |                                       |
| HNSZ2-575           | G          | 223 274 362                    | 73 143 152 263 309+C 315+C 489 709 750          | 16013-16569/1-836     |                        |             |      |                          |                                       |
| HNSZ2-599           | G          | 223 362 519                    | 73 200 263 309+C 315+C 489 709 739 750          | 16013-16569/1-806     | +                      |             |      | 4240-4960=4769 4833      |                                       |
| HNSZ2-627           | G          | 223 319 362                    | 73 263 309+C 315+C 489 709 750                  | 16013-16569/1-836     | +                      |             |      | 4240-4960=4769 4833 4853 |                                       |
| HNSZ2-632           | G          | 183 223 362                    | 73 263 315+C 489 709 750                        | 16013-16569/1-872     | +                      |             |      | 4240-4960=4769 4833      |                                       |
| HNSZ2-647           | G          | 209 223 227 274 278 362        | 73 146 263 309+C 315+C 489 709 750              | 16013-16569/1-806     |                        |             |      |                          |                                       |
| HNSZ2-656           | G          | 223 256 325 362 422 519        | 73 150 263 309+C 315+C 489 709 750              | 16013-16569/1-873     |                        |             |      |                          |                                       |
| HNSZ2-665           | G          | 114A 145 223 243 362 519       | 73 191+A 194 204 263 309+2C 315+C 489 709 750   | 16013-16569/1-836     |                        |             |      |                          |                                       |
| HNSZ2-667           | G          | 223 362 519                    | 73 236 263 315+C 489 593 709 750                | 16013-16569/1-836     |                        |             |      | 4540-5098=4769 4833 4973 |                                       |
| HNSZ2-668           | G          | 051 189 223 362 519            | 73 263 309+C 315+C 489 593 709 750              | 16013-16569/1-860     |                        |             |      | 4540-5098=4769 4833      |                                       |
| HNSZ2-681           | G          | 223 229 274 362                | 73 263 315+C 489 709 750                        | 16013-16569/1-806     |                        |             |      | 4540-5098=4769 4833      |                                       |
| HNSZ2-695           | G          | 051 189 223 362 519            | 73 263 309+2C 315+C 489 593 709 750             | 16013-16569/1-785     |                        |             |      | 4540-4920=4769 4833      |                                       |
| HNSZ2-727           | G          | 189 223 265C 274 362           | 73 143 263 315+C 489 573+4C                     | 16013-16569/1-573     |                        |             |      |                          |                                       |
| HNSZ2-779           | G          | 051 114 223 227 278 291 362    | 73 263 309+C 315+C 489 709 750                  | 16013-16569/1-908     |                        |             |      |                          |                                       |
| HNSZ2-781           | G          | 223 227 278 362                | 73 152 263 309+2C 315+C 489 523-524d 709 750    | 16013-16569/1-867     |                        |             |      |                          |                                       |
| HNSZ2-824           | G          | 223 325 362 519                | 73 263 309+C 315+C 489 709 750                  | 16013-16569/1-806     | +                      |             |      | 4240-4960=4769 4833      |                                       |
| HN-SZ706            | G          | 136 223 362                    | 73 263 315+C 489 709 750                        | 16013-16569/1-921     | +                      |             |      |                          |                                       |
| HN-SZ418            | G          | 183 223 362                    | 73 263 315+C 489 709 750                        | 16024-16569/1-921     | +                      |             |      |                          |                                       |
| HN-SZ580            | G          | 185 223 269 318C 362           | 73 195 263 315+C 489 709 750                    | 16009-16569/1-921     | +                      |             |      |                          |                                       |
| HN-SZ141            | G          | 223 269 286G 362               | 73 263 309+C 315+C 489 709 750                  | 16013-16569/1-911     | +                      |             |      |                          |                                       |
| HN-SZ749            | G          | 223 304 311 319 362 519        | 73 140 152 263 309+C 315+C 489 709 750          | 16013-16569/1-886     | +                      |             |      |                          |                                       |
| HN-SZ780            | G          | 223 311 362 519                | 73 263 315+C 417 489 523-524d 750               | 16012-16569/1-921     | +                      |             |      |                          |                                       |
| HN-SZ230            | G          | 223 319 362 519                | 73 263 315+C 408A 489 593 709 750               | 16030-16569/1-921     | C                      |             |      | 4900-5550=4973 5108      |                                       |
| HN-SZ33             | G          | 051 189 223 362 519            | 73 263 309+C 315+C 489 593 709 750              | 16047-16569/1-921     | +                      |             |      |                          |                                       |
| HN-SZ712            | G          | 092 223 362 519                | 16T 73 150 183 263 315+C 467 489 709 750        | 16013-16569/1-921     | +                      |             |      |                          |                                       |
| HN-SZ300            | G          | 209 223 325 362 519            | 73 146 150 195 263 309+C 315+C 489 709 750      | 16042-16569/1-878     |                        |             |      |                          |                                       |
| HN-SZ95             | G          | 223 256 325 362 519            | 73 150 263 309+C 315+C 489 709 750              | 16073-16569/1-921     |                        |             |      |                          |                                       |
| HN-SZ162            | G          | 223 325 362 519                | 73 263 315+C 489 709 750                        | 16060-16569/1-795     | +                      |             |      |                          |                                       |
| HN-SZ407            | G          | 223 325 519                    | 73 150 263 315+C 489 709 750                    | 16032-16569/1-921     |                        |             |      |                          |                                       |
| HN-SZ707            | G          | 126 145 184 223 290 362 519    | 73 150 263 309+C 315+C 489 709 750              | 16012-16569/1-921     |                        |             |      |                          |                                       |
| HN-SZ250            | G          | 184 223 290 362 519            | 73 150 238 263 309+C 315+C 489 596 709 750      | 16017-16569/1-921     |                        |             |      |                          |                                       |
| HN-SZ263            | G          | 129 223 278 362                | 73 263 291T 315+C 489 709 750                   | 16060-16569/1-921     | +                      |             |      |                          |                                       |
| HN-SZ382            | G          | 129 223 278 362                | 73 263 315+C 489 709 750                        | 16011-16569/1-921     |                        |             |      |                          |                                       |
| HN-SZ486            | G          | 172 223 227 278 362            | 73 263 309+C 315+C 489 709 750                  | 16033-16569/1-911     |                        |             |      |                          |                                       |
| HN-SZ746            | G          | 189 223 227 278 362            | 73 195 263 315+C 489 709 750                    | 16013-16569/1-921     |                        |             |      |                          |                                       |
| HN-SZ174            | G          | 189 223 227 278 362 519        | 73 263 315+C 489 709 750                        | 16043-16569/1-921     |                        |             |      |                          |                                       |
| HN-SZ568            | G          | 189 223 261 278                | 73 207 263 309+C 315+C 489 709 750              | 16045-16569/1-921     | +                      |             |      |                          |                                       |
| HN-SZ589            | G          | 203H 223 278 362               | 73 152 263 309+C 315+C 489 709 750              | 16010-16569/1-921     | +                      |             |      |                          |                                       |
| HN-SZ628            | G          | 203H 223 278 362               | 73 152 263 309+C 315+C 489 709 750              | 16013-16569/1-911     |                        |             |      |                          |                                       |
| HN-SZ285            | G          | 204 223 278 362                | 73 146 152 263 309+C 315+C 489 709 750          | 16043-16569/1-921     | +                      |             |      |                          |                                       |
| HN-SZ595            | G          | 223 224 227 278 362            | 73 263 309+C 315+C 489 709 750                  | 16041-16569/1-921     |                        |             |      |                          |                                       |
| HN-SZ63             | G          | 223 227 278 362                | 73 152 263 309+C 315+C 489 523-524d 709 711 750 | 16015-16569/1-921     |                        |             |      |                          |                                       |
| HN-SZ164            | G          | 223 227 278 362                | 73 152 263 309+C 315+C 489 551 573+3C 709 750   | 16055-16569/1-870     |                        |             |      |                          |                                       |
| HN-SZ710            | G          | 223 227 278 362                | 73 263 309+C 315+C 489                          | 16010-16569/1-670     |                        |             |      |                          |                                       |
| HN-SZ430            | G          | 223 278 311 362                | 64 73 263 309+C 315+C 489 573+3C 709 750        | 16033-16569/1-874     | +                      |             |      |                          |                                       |
| HN-SZ612            | G          | 223 278 362                    | 73 152 263 309+C 315+C 489 573+4C 709 750       | 16037-16569/1-866     | +                      |             |      |                          |                                       |
| HN-SZ332            | G          | 051 114 223 227 278 291 362    | 73 263 309+C 315+C 489 709 750                  | 16022-16569/1-911     |                        |             |      |                          |                                       |
| HN-SZ54             | G          | 223 227 278 362                | 73 146 207 263 315+C 489 709 750                | 16032-16569/1-921     |                        |             |      |                          |                                       |
| HN-SZ550            | G          | 189 278 362                    | 73 260 263 309+C 315+C 489 709 750              | 16033-16569/1-911     |                        |             |      |                          |                                       |
| HN-SZ556            | G          | 189 223 274 319 362            | 73 152 263 309+C 315+C 489 709 750              | 16013-16569/1-911     | +                      |             |      |                          |                                       |
| HN-SZ634            | G          | 189 223 274 319 362            | 73 152 263 309+C 315+C 489 709 750              | 16007-16569/1-921     | +                      |             |      |                          |                                       |
| HN-SZ498            | G          | 223 274 278 362                | 73 263 309+C 315+C 489 709 750                  | 16052-16569/1-921     |                        |             |      |                          |                                       |

| Sample <sup>a</sup> | Haplotype | Region 1 (16000+) <sup>b</sup>   | Region 2 <sup>b</sup>                                       | Coverage <sup>c</sup> | 12406 | Additional polymorphisms <sup>e</sup>              |
|---------------------|-----------|----------------------------------|---|-----------------------|-------|--|
| HN-SZ386            | G         | 186 223 274 362                  | 73 143 152 195 263 309+C 315+C 489 573+C 709 750            | 16042-16569/1-921     |       |  |
| HN-SZ345            | G         | 223 274                          | 73 143 263 315+C 489 709 750                                | 16040-16569/1-911     |       |  |
| HN-SZ62             | G         | 189 214 223 265C 274 362         | 73 143 152 199 263 315+C 489 573+2C 709 750                 | 16013-16569/1-921     |       |  |
| HN-SZ753            | G         | 093 223 233 274 362              | 73 137 142 195 263 309+C 315+C 489 709 750                  | 16013-16569/1-921     |       |  |
| HNSZ2-506           | M*        | 223 362 381 519                  | 73 150 152 260 263 315+C 489 750                            | 16013-16569/1-836     | +     | 4237-5098=4769                                     |
| HNSZ2-572           | M*        | 129 183C 189 223 224 233 519     | 73 234 263 315+C 316 489 750                                | 16013-16569/1-836     | +     | 2840-3600=rCRS; 3680-4400=4012 4071                |
| HNSZ2-614           | M*        | 129 189 223 224 233 519          | 73 234 263 309+C 315+C 316 489 750                          | 16013-16569/1-806     | +     | 2840-3420=rCRS; 3680-4400=4012 4071                |
| HNSZ2-617           | M*        | 223 256 302 362 519              | 73 234 263 309+C 315+C 489 533 750                          | 16013-16569/1-806     | +     | 3680-4400=3796 4079 4219; 4240-4960=4769 4823      |
| HN-SZ371            | M*        | 223 256 362 519                  | 73 188 234 263 309+C 315+C 489 533 750                      | 16013-16569/1-921     | +     | 6900-7450=7028 8660-9300=8671 8701 8848 8860; 9921 |
| HN-SZ268            | M*        | 223 311 362 519                  | 73 263 315+C 417 489 523-524d 750                           | 16081-16569/1-921     | +     | 770-1417=rCRS; 2050-2700=rCRS; 4900-5550=4976      |
| HN-SZ64             | M*        | 129 189 223 224 233 519          | 73 234 263 315+C 316 489 750                                | 16013-16569/1-921     |       | 8790-9300=8860; 9700-10200=9824                    |
| HNSZ2-402           | M10       | 093 129 193 223 311 357 497      | 73 146 263 309+C 315+C 489 523-524d 573+5C                  | 16016-16569/1-573     |       |  |
| HNSZ2-403           | M10       | 129 223 311 357 497              | 73 263 309+C 315+C 489 523-524d 573+3C                      | 16017-16569/1-573     |       |  |
| HNSZ2-501           | M10       | 223 311 519                      | 73 94 263 309+C 315+C 489 573-3C                            | 16013-16569/1-573     | +     | 12370-13860=12549 12705 13152                      |
| HNSZ2-524           | M10       | 193 223 311 357 497 519          | 73 146 189 199 263 309+C 315+C 489 523-524d 573+4C          | 16013-16569/1-573     |       | 12370-13860=12549 12705 13135 13152                |
| HNSZ2-541           | M10       | 093 129 168 223 311              | 73 263 315+C 489 573+4C                                     | 16013-16569/1-573     | +     | 12370-13860=12549 12630 12705 13135 13152          |
| HNSZ2-674           | M10       | 066 223 249 311 519              | 73 263 315+C 489 573+2C 593 709 750                         | 16013-16569/1-797     | +     | 8605-8860=8793 8856 8860                           |
| HNSZ2-713           | M10       | 129 223 311                      | 73 263 309+2C 315+C 489 573+2C                              | 16013-16569/1-573     | +     | 12370-13860=12549 12705 13135 13152                |
| HNSZ2-741           | M10       | 129 223 311                      | 73 263 309+C 315+C 489 573+3C                               | 16013-16569/1-573     | +     | 12370-13860=12549 12705 13135 13152                |
| HNSZ2-776           | M10       | 129 223 311                      | 73 263 309+C 315+C 489 573+5C 709 750                       | 15647-16569/1-829     |       |  |
| HNSZ2-785           | M10       | 129 223 274 311                  | 73 263 309+C 315+C 489 573+3C                               | 16013-16569/1-573     | +     | 12370-13860=12549 12705 13135 13152                |
| HNSZ2-818           | M10       | 129 223 311                      | 73 263 309+C 315+C 489 573+4C                               | 16013-16569/1-573     | +     | 12370-13860=12549 12705 13135 13152                |
| HN-SZ247            | M10       | 129 193 223 311 357              | 73 146 263 309+C 315+C 489 523-524d 573+2C 709 750          | 16023-16569/1-833     |       |  |
| HN-SZ126            | M10       | 129 223 311 526                  | 73 263 309+2C 315+C 489 573+4C 709 750                      | 16050-16569/1-863     |       |  |
| HN-SZ726            | M10       | 145 223 311 519                  | 73 263 309+C 315+C 489 573+5C 709 750                       | 16013-16569/1-784     |       |  |
| HN-SZ713            | M10       | 215Th 223 256 311                | 73 195 263 315+C 489 573+5C 709 750                         | 16013-16569/1-801     |       |  |
| HN-SZ623            | M10       | 066 213 223 311 519              | 73 263 315+C 489 573+5C 709 750                             | 16012-16569/1-870     |       |  |
| HN-SZ639            | M10       | 066 213 223 311 519              | 73 263 315+C 489 573+5C 709 750                             | 16013-16569/1-845     |       |  |
| HN-SZ260            | M10       | 093 129 223 311                  | 73 228 263 309+C 315+C 489 573+4C 709 750                   | 16013-16569/1-863     |       |  |
| HN-SZ619            | M10       | 129 193 223 311 357 497          | 73 146 263 309+C 315+C 489 523-524d 573+4C 709 750          | 16030-16569/1-854     |       |  |
| HN-SZ401            | M10       | 193 223 311 357 497 519          | 73 146 189 199 263 309+C 315+C 489 523-524d 573+4C 709 750  | 16055-16569/1-841     |       |  |
| HN-SZ547            | M10       | 093 129 223 311 344 357 497      | 73 263 309+C 315+C 489 573+3C 709 750                       | 16009-16569/1-852     |       |  |
| HN-SZ399            | M10       | 066 189 223 311                  | 73 263 309+C 315+C 489 573+4C 709 750                       | 16047-16569/1-802     |       |  |
| HN-SZ320            | M10       | 066 223 274 311 519              | 73 146 263 315+C 489 573+3C 709 750                         | 16050-16569/1-870     |       |  |
| HNSZ2-469           | M11       | 223                              | 73 198 200 215 263 315+C 318 326 489 750                    | 16013-16569/1-832     |       |  |
| HNSZ2-527           | M11       | 194 223                          | 73 93 150 215 263 309+C 315+C 318 326 489 750               | 16013-16569/1-783     |       |  |
| HNSZ2-718           | M11       | 075 127 172 173 223              | 73 200 215 263 309+C 315+C 318 326 489 523-524d 750         | 16013-16569/1-860     |       |  |
| HNSZ2-756           | M11       | 223 295 519                      | 73 200 215 263 309+C 315+C 318 326 460 471 489 750          | 16013-16569/1-827     |       |  |
| HN-SZ233            | M11       | 223                              | 73 200 215 263 315+C 318 326 489 739 750                    | 16012-16569/1-911     |       |  |
| HN-SZ22             | M11       | 176 223 295 519                  | 73 200 215 263 309+C 315+C 318 326 471 489 750              | 16033-16569/1-921     |       |  |
| HN-SZ701            | M11       | 051 173 223 519                  | 73 146 198 200 215 263 309+C 315+C 318 326 489 750          | 16013-16569/1-921     |       |  |
| HNSZ2-707           | M12       | 093 223 234 266 290 311          | 73 125 127 128 146 152 263 315+C 318 326 489 750            | 16013-16569/1-873     |       |  |
| HNSZ2-759           | M12       | 172 223 290 311                  | 73 125 127 263 309+C 315+C 489 523-524d 633 750             | 16013-16569/1-845     |       |  |
| HN-SZ504            | M12       | 172 183C 189 223 234 290 304 519 | 73 125 127 207 263 309+C 315+C 456 489 750                  | 16080-16569/1-921     |       |  |
| HN-SZ733            | M12       | 175 223 290 362 519              | 73 125 127 128 263 315+C 318 489 513 523-524d 750           | 16013-16569/1-921     |       |  |
| HN-SZ474            | M12       | 223 234 290 311 519              | 73 125 127 128 146 189 194 263 309 318 489 523-524d 750 762 | 16023-16569/1-911     |       |  |
| HN-SZ561            | M12       | 223 234 290 362                  | 73 125 127 128 263 295 309+C 315+C 318 489 513 523-524d 750 | 16038-16569/1-921     |       |  |
| HN-SZ636            | M12       | 223 234 290 362                  | 73 125 127 128 263 295 309+C 315+C 318 489 513 523-524d 750 | 16013-16569/1-921     |       |  |
| HNSZ2-545           | M13       | 145 148 188 189 223 381          | 73 152 263 315+C 489 750                                    | 16013-16569/1-836     | +     |  |
| HNSZ2-443           | M20       | 129 209 223 272 519              | 73 152 225 249d 263 309+2C 315+C 316 489 523-524d 750       | 16013-16569/1-790     | +     | 10215-10960=10274 10398 10400 10679 10873          |
| HNSZ2-542           | M20       | 129 209 223 272 519              | 73 152 225 226h 249d 263 309+2C 315+C 316 489 523-524d 750  | 16013-16569/1-908     | +     | 10215-10960=10274 10398 10400 10679 10873          |
| HNSZ2-794           | M20       | 086 129 209 223 272 519          | 73 152 225 249d 263 315+C 316 489 523-524d 750              | 16013-16569/1-836     | +     | 10215-10960=10274 10398 10400 10679 10873          |
| HNSZ2-450           | M33       | 111 192 223 362 519              | 73 263 315+C 489 524+AC 532T 750                            | 16013-16569/1-836     | +     | 3210-3915=3316 3411                                |
| HNSZ2-624           | M33       | 093 104 111 223 362 519          | 73 263 309+C 315+C 489 750                                  | 16013-16569/1-836     |       |  |
| HNSZ2-645           | M33       | 111 129 140 223 235 300 362 519  | 73 150 263 315+C 489 750                                    | 16013-16569/1-836     | +     | 3210-3915=3316 3865                                |
| HN-SZ378            | M33       | 111 129 223 300 362 519          | 73 150 263 309+C 315+C 489 750                              | 16013-16569/1-921     | + A   |  |
| HN-SZ420            | M33       | 111 192 223 362 519              | 73 263 315+C 489 524+AC 532T 750                            | 16058-16569/1-921     | + A   | 770-1417=rCRS                                      |
| HN-SZ167            | M33       | 111 223 235 356 362 519          | 73 263 309+C 315+C 489 750                                  | 16024-16569/1-921     | +     |  |
| HN-SZ104            | M33       | 111 223 235 362 519              | 73 263 308-310d 315+C 489 523-524d 750                      | 16023-16569/1-921     | +     |  |
| HN-SZ527            | M33       | 111 223 235 362 519              | 73 263 309+C 315+C 489 750                                  | 16009-16569/1-921     |       |  |
| HN-SZ416            | M33       | 093 104 111 223 362 519          | 73 263 309+C 315+C 489 750                                  | 16033-16569/1-921     | + A   | 770-1417=rCRS                                      |
| HNSZ2-441           | M71       | 209 223 260 264 271 519          | 73 151 263 309+C 315+C 489 524+2AC 750                      | 16013-16569/1-771     | +     |  |
| HNSZ2-477           | M71       | 223 271                          | 73 150 152 204 263 309+C 315+C 489 750                      | 16013-16569/1-836     | + A   |  |
| HNSZ2-669           | M71       | 129 223 249 271 368              | 73 150 151 195 263 315+C 489 750                            | 16013-16569/1-873     | + A   |  |
| HNSZ2-737           | M71       | 170 184 223 271                  | 73 151 263 315+C 489 508 573+3C                             | 16013-16569/1-573     | + A   | 8605-8860=8718 8860                                |
| HN-SZ161            | M71       | 223 260 264 271 319 519          | 73 151 152 263 309+2C 315+C 489 524+AC 750                  | 16055-16569/1-795     | + A   |  |
| HN-SZ609            | M71       | 223 269 271                      | 73 150 151 263 309+2C 315+C 489 750                         | 16008-16569/1-921     | + G   | 8701 8860  |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>  | Region 2 <sup>b</sup>                              | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281-8-289d | 8718 | Additional polymorphisms <sup>e</sup>                 |
|---------------------|------------|---------------------------------|--|-----------------------|------------------------|-------------|------|---|
| HN-SZ385            | M71        | 223 269 271                     | 73 150 152 204 263 315+C 489 750                   | 16033-16569/1-921     |                        |             |      |   |
| HN-SZ224            | M71        | 223 271 293T                    | 73 152 263 315+C 489 750                           | 16050-16569/1-921     | +                      |             | G    | 4900-5550=rCRS; 5800-6356=6257; 8701 8860 10398 10400 |
| HN-SZ87             | M71        | 223 271 311                     | 73 150 151 263 309+C 315+C 489 750                 | 16023-16569/1-921     | +                      |             |      |   |
| HNS22-540           | M74        | 093 223 274 311 362 381         | 63 64 66 73 263 315+C 489 750                      | 16013-16569/1-783     |                        |             |      |   |
| HNS22-750           | M74        | 093 223 311 362 381             | 63 64 66 71d 73 215 263 315+C 489 523-524d 750     | 16013-16569/1-872     |                        |             |      |   |
| HN-SZ197            | M74        | 223 362 381 519                 | 73 150 152 260 263 315+C 489 750                   | 16012-16569/1-902     | +                      |             |      |   |
| HN-SZ361            | M74        | 093 192 223 311 362 381         | 63 64 66 73 215 263 315+C 489 523-524d 750         | 16080-16569/1-921     |                        |             |      |   |
| HN-SZ436            | M74        | 093h 223 311 362                | 63 64 66 73 215 263 309+C 315+C 489 523-524d 750   | 16033-16569/1-921     | +                      |             |      |   |
| HNS22-616           | M75        | 068 126 182C 183C 189 223 325   | 73 146 150 152 195 214 263 309+2C 315+C 489 750    | 16013-16569/1-908     |                        |             |      |   |
| HN-SZ8              | M75        | 068 183C 189 223 311 519        | 73 146 150 152 263 308-310d 315+C 489 523-524d 750 | 16017-16569/1-911     |                        |             |      |   |
| HNS22-763           | M76        | 183C 189 293C 296+C 325 362     | 73 146 234 263 309+C 315+C 489 513 750             | 16013-16569/1-806     | +                      |             |      |   |
| HN-SZ679            | M76        | 183C 189 223 293C 325 362       | 73 146 234 263 309+C 315+C 489 513 750             | 16013-16569/1-911     | +                      |             |      | 8660-9300=8701 8860 9055; 9700-10380=10325            |
| HN-SZ57             | M76        | 183C 189 293C 296+C 325 362     | 73 146 234 263 309+2C 315+C 489 513 750            | 16022-16569/1-921     | +                      |             |      | 6900-7600=7028 7353 7521; 8790-9300=8860 9055; 10325  |
| HNS22-419           | M7b        | 129 189 223 297                 | 73 150 199 263 309+2C 315+C 489 573+4C             | 16012-16569/1-573     |                        |             |      |   |
| HNS22-456           | M7b        | 129 189 223 297                 | 73 150 199 263 315+C 332 489 750                   | 16012-16569/1-827     |                        |             |      |   |
| HNS22-478           | M7b        | 129 189 223 248 297             | 73 150 199 204 207 263 315+C 489 750               | 16012-16569/1-836     |                        |             |      |   |
| HNS22-492           | M7b        | 129 192 223 297                 | 73 150 185 199 263 309+2C 315+C 489 750            | 16013-16569/1-836     |                        |             |      |   |
| HNS22-504           | M7b        | 129 192 223 297                 | 73 150 199 263 309+2C 315+C 489 750                | 16013-16569/1-814     |                        |             |      |   |
| HNS22-528           | M7b        | 129 189 192 223 297 390         | 73 150 199 263 309+C 315+C 332 489 750             | 16013-16569/1-783     |                        |             |      |   |
| HNS22-548           | M7b        | 129 192 223 297 355             | 73 150 199 207 263 309+C 315+C 489 750             | 16013-16569/1-836     |                        |             |      |   |
| HNS22-581           | M7b        | 129 192 223 297                 | 73 150 199 263 309+C 315+C 489 750                 | 16013-16569/1-806     |                        |             |      |   |
| HNS22-588           | M7b        | 086 297 324                     | 73 199 263 315+C 489 750                           | 16013-16569/1-845     |                        |             |      |   |
| HNS22-593           | M7b        | 129 192 223 297                 | 73 150 199 263 309+2C 315+C 489 538 750            | 16013-16569/1-760     |                        |             |      |   |
| HNS22-598           | M7b        | 129 189 223 297 298             | 73 150 199 263 315+C 489 750                       | 16013-16569/1-826     |                        |             |      |   |
| HNS22-600           | M7b        | 129 192 223 297                 | 73 150 199 206Gh 263 315+C 489 750                 | 16013-16569/1-806     |                        |             |      |   |
| HNS22-610           | M7b        | 129 189 223 297 300 519         | 73 150 199 263 309+C 315+C 489 750                 | 16013-16569/1-791     |                        |             |      |   |
| HNS22-612           | M7b        | 129 189 192 223 297             | 73 150 199 204 207 263 315+C 489 750               | 16013-16569/1-836     |                        |             |      |   |
| HNS22-613           | M7b        | 223 297                         | 73 150 199 204 263 309+C 315+C 489 750             | 16013-16569/1-836     |                        |             |      |   |
| HNS22-636           | M7b        | 172 223 297                     | 73 150 199 203 204 263 315+C 489 750               | 16013-16569/1-836     |                        |             |      |   |
| HNS22-652           | M7b        | 066 129 223 255 297             | 73 150 159 199 263 309+C 315+C 489 750             | 16013-16569/1-872     |                        |             |      |   |
| HNS22-663           | M7b        | 129 192 223 297 519             | 73 150 152 199 263 315+C 489 750                   | 16013-16569/1-813     |                        |             |      |   |
| HNS22-677           | M7b        | 129 192 209 223 297 311 362 400 | 73 150 199 263 309+C 315+C 489 750                 | 16013-16569/1-766     |                        |             |      |   |
| HNS22-686           | M7b        | 129 183C 189 223 297 298        | 73 150 199 263 309+2C 315+C 489 750                | 16013-16569/1-908     |                        |             |      |   |
| HNS22-688           | M7b        | 129 192 223 297 318h            | 73 150 199 263 309+C 315+C 489 750                 | 16013-16569/1-872     |                        |             |      |   |
| HNS22-696           | M7b        | 129 192 223 297                 | 73 150 199 263 315+C 489 750                       | 16013-16569/1-873     |                        |             |      |   |
| HNS22-697           | M7b        | 129 183C 189 223 297 298 325    | 73 150 199 204 263 309+2C 315+C 489 750            | 16013-16569/1-908     |                        |             |      |   |
| HNS22-716           | M7b        | 129 192 217 223 297             | 73 150 199 263 309+C 315+C 489 750                 | 16013-16569/1-872     |                        |             |      |   |
| HNS22-719           | M7b        | 129 192 223 297 362 400 519     | 73 150 199 263 309+C 315+C 489 750                 | 16013-16569/1-836     |                        |             |      |   |
| HNS22-740           | M7b        | 129 192 223 297                 | 73 150 199 263 309+2C 315+C 489 538 750            | 16013-16569/1-869     |                        |             |      |   |
| HNS22-768           | M7b        | 129 192 223 297 362 400         | 73 150 199 263 309+C 315+C 489 750                 | 16013-16569/1-836     |                        |             |      |   |
| HNS22-771           | M7b        | 129 189 223 297 298 325         | 73 150 199 263 309+2C 315+C 489                    | 16013-16569/1-671     |                        |             |      |   |
| HNS22-778           | M7b        | 172 223 297                     | 73 150 199 203 204 263 315+C 489 709 750           | 16013-16569/1-873     |                        |             |      |   |
| HNS22-792           | M7b        | 129 189 223 297                 | 73 150 199 204 251 263 315+C 456 489 750           | 16013-16569/1-836     |                        |             |      |   |
| HNS22-798           | M7b        | 129 192 223 297 519             | 73 150 199 263 315+C 489 750                       | 16013-16569/1-836     |                        |             |      |   |
| HNS22-807           | M7b        | 129 223 297                     | 73 150 199 263 315+C 489 750                       | 16013-16569/1-872     |                        |             |      |   |
| HN-SZ508            | M7b        | 111A 12B 145 223 297 311        | 73 150 199 234 263 309+C 315+C 489 750             | 16055-16569/1-921     |                        |             |      |   |
| HN-SZ153            | M7b        | 129 172 223 297                 | 73 150 159 199 263 309+C 315+C 489 750             | 16033-16569/1-921     |                        |             |      |   |
| HN-SZ107            | M7b        | 129 183C 189 223 298 297        | 73 150 199 204 207 263 315+C 489 750               | 16032-16569/1-921     |                        |             |      |   |
| HN-SZ31             | M7b        | 129 183C 189 223 297 310        | 73 150 199 204 263 309+C 315+C 489 750             | 16033-16569/1-911     |                        |             |      |   |
| HN-SZ478            | M7b        | 129 189 223 248 297             | 73 150 199 204 207 263 315+C 489 750               | 16024-16569/1-911     |                        |             |      |   |
| HN-SZ363            | M7b        | 129 189 223 297                 | 73 146 150 199 204 263 309+C 315+C 456 489 750     | 16009-16569/1-921     |                        |             |      |   |
| HN-SZ756            | M7b        | 129 189 223 297                 | 73 146 150 199 204 263 309+C 315+C 456 489 750     | 16014-16569/1-921     |                        |             |      |   |
| HN-SZ94             | M7b        | 129 189 223 297                 | 73 150 151 199 263 309+C 315+C 417 489 573+4C 750  | 16017-16569/1-852     |                        |             |      |   |
| HN-SZ308            | M7b        | 129 189 223 297                 | 73 152 159 199 263 315+C 489 750                   | 16012-16569/1-921     |                        |             |      |   |
| HN-SZ171            | M7b        | 129 189 223 297                 | 73 150 199 204 263 315+C 456 489 750               | 16087-16569/1-921     |                        |             |      |   |
| HN-SZ505            | M7b        | 129 189 223 297                 | 73 150 199 204 263 315+C 456 489 750               | 16073-16569/1-921     |                        |             |      |   |
| HN-SZ521            | M7b        | 129 189 223 297                 | 73 150 199 263 309+C 315+C 417 489 573+4C 750      | 16051-16569/1-873     |                        |             |      |   |
| HN-SZ319            | M7b        | 129 189 223 297                 | 73 150 199 204 227 263 309+C 315+C 456 489 750     | 16013-16569/1-847     |                        |             |      |   |
| HN-SZ173            | M7b        | 129 223 297                     | 73 150 199 263 309+2C 315+C 489 750                | 16063-16569/1-921     |                        |             |      |   |
| HN-SZ216            | M7b        | 129 223 297 311                 | 73 150 199 263 315+C 450 489 750                   | 16023-16569/1-921     |                        |             |      |   |
| HN-SZ698            | M7b        | 129 223 297 483 519             | 73 150 159 199 263 309+C 315+C 459 573+2C 750      | 16013-16569/1-921     |                        |             |      |   |
| HN-SZ673            | M7b        | 223 297                         | 73 150 152 199 204 263 315+C 489 750               | 16013-16569/1-921     |                        |             |      |   |
| HN-SZ437            | M7b        | 223 297                         | 73 150 199 204 263 309+C 315+C 489 750             | 16009-16569/1-911     |                        |             |      |   |
| HN-SZ92             | M7b        | 223 297                         | 73 150 199 204 263 315+C 489 750                   | 16047-16569/1-921     |                        |             |      |   |
| HN-SZ507            | M7b        | 223 297 555                     | 73 150 199 204 263 315+C 489 750                   | 16032-16569/1-921     |                        |             |      |   |
| HN-SZ536            | M7b        | 038 129 223 297                 | 73 146 150 199 263 309+C 315+C 408A 489 750        | 16010-16569/1-921     |                        |             |      |   |
| HN-SZ152            | M7b        | 093 223 297                     | 73 150 199 204 263 271 309+C 315+C 489 750         | 16047-16569/1-921     |                        |             |      |   |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup> | Region 2 <sup>b</sup>                                   | Coverage <sup>c</sup> | 5176 A/Iu <sup>d</sup> | 8281-8-289d | 8718 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|--------------------------------|---|-----------------------|------------------------|-------------|------|---------------------------------------|
| HN-SZ341            | M7b        | 129 188 192 223 297 362 400    | 73 150 199 263 309+C 315+C 489 750                      | 16037-16569/1-911     |                        |             |      |                                       |
| HN-SZ359            | M7b        | 129 189 191+C 192 223 297 526  | 73 150 199 263 309+C 315+C 408A 489 750                 | 16043-16569/1-921     |                        |             |      |                                       |
| HN-SZ192            | M7b        | 129 189 192 223 248 297 519    | 73 150 199 263 309+C 315+C 489 593 750                  | 16080-16569/1-911     |                        |             |      |                                       |
| HN-SZ294            | M7b        | 129 189 192 223 297            | 73 150 199 204 207 263 315+C 489 750                    | 16030-16569/1-921     |                        |             |      |                                       |
| HN-SZ779            | M7b        | 129 189 192 223 297            | 73 150 199 204 239 263 315+C 489 750                    | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ422            | M7b        | 129 189 192 223 297 390        | 73 150 199 263 309+C 315+C 332 489 750                  | 16033-16569/1-921     |                        |             |      |                                       |
| HN-SZ546            | M7b        | 129 192 223 265h 297           | 73 150 152 199 263 309+C 315+C 489 750                  | 16012-16569/1-911     |                        |             |      |                                       |
| HN-SZ695            | M7b        | 129 192 223 297                | 73 150 182 199 263 315+C 459d 489 750                   | 16009-16569/1-911     |                        |             |      |                                       |
| HN-SZ237            | M7b        | 129 192 223 297                | 73 150 195 199 263 309+C 315+C 489 750                  | 16017-16569/1-921     |                        |             |      |                                       |
| HN-SZ605            | M7b        | 129 192 223 297                | 73 150 195 199 263 309+C 315+C 489 750                  | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ659            | M7b        | 129 192 223 297                | 73 150 195 199 263 309+C 315+C 489 750                  | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ685            | M7b        | 129 192 223 297                | 73 150 199 204 263 309+2C 315+C 489 709 750             | 16012-16569/1-911     |                        |             |      |                                       |
| HN-SZ138            | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 538 750                  | 16037-16569/1-921     |                        |             |      |                                       |
| HN-SZ657            | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                      | 16007-16569/1-921     |                        |             |      |                                       |
| HN-SZ716            | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                      | 16009-16569/1-921     |                        |             |      |                                       |
| HN-SZ49             | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 524+AC 750               | 16032-16569/1-921     |                        |             |      |                                       |
| HN-SZ69             | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                      | 16023-16569/1-921     |                        |             |      |                                       |
| HN-SZ88             | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                      | 16032-16569/1-921     |                        |             |      |                                       |
| HN-SZ395            | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                      | 16032-16569/1-921     |                        |             |      |                                       |
| HN-SZ599            | M7b        | 129 192 223 297                | 73 150 199 263 309+C 315+C 489 750                      | 16009-16569/1-911     |                        |             |      |                                       |
| HN-SZ456            | M7b        | 129 192 223 297                | 73 150 199 263 315+C 489 750                            | 16012-16569/1-911     |                        |             |      |                                       |
| HN-SZ660            | M7b        | 129 192 223 297                | 73 150 199 263 315+C 489 750                            | 16009-16569/1-911     |                        |             |      |                                       |
| HN-SZ100            | M7b        | 129 192 223 297                | 73 150 263 309+C 315+C 489 750                          | 16087-16569/1-921     |                        |             |      |                                       |
| HN-SZ674            | M7b        | 129 192 223 297 362 400        | 73 150 199 263 309+C 315+C 489 750                      | 16032-16569/1-921     |                        |             |      |                                       |
| HN-SZ703            | M7b        | 129 192 223 297 362 400        | 73 150 199 263 309+C 315+C 489 750                      | 16012-16569/1-921     |                        |             |      |                                       |
| HN-SZ607            | M7b        | 129 192 223 297 519            | 73 150 199 263 309+C 315+C 489 508 750                  | 16007-16569/1-911     |                        |             |      |                                       |
| HN-SZ342            | M7b        | 192 223 297                    | 73 150 199 263 309+C 315+C 489 750                      | 16051-16569/1-911     |                        |             |      |                                       |
| HN-SZ123            | M7b        | 057+C 129 192 223 297          | 73 150 199 263 315+C 489 750                            | 16042-16569/1-921     |                        |             |      |                                       |
| HN-SZ771            | M7b        | 086 129 192 223 291 297        | 73 150 199 263 309+C 315+C 489 750                      | 16013-16569/1-911     |                        |             |      |                                       |
| HN-SZ207            | M7b        | 092 129 192 223 254 297        | 73 150 159 182 199 263 315+C 489 750                    | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ302            | M7b        | 092 129 192 223 297            | 73 150 159 199 263 315+C 489 523-524d 750               | 16016-16569/1-911     |                        |             |      |                                       |
| HN-SZ767            | M7b        | 129 183C 189 223 297 298 519   | 73 150 199 263 309+C 315+C 489 750                      | 16043-16569/1-921     |                        |             |      |                                       |
| HN-SZ370            | M7b        | 129 297 324 343 362            | 73 199 263 309+2C 315+C 489 750                         | 16013-16569/1-921     |                        |             |      |                                       |
| HN-SZ166            | M7b        | 086 129 297 324                | 73 199 263 315+C 489 750                                | 16023-16569/1-921     |                        |             |      |                                       |
| HNSZ2-417           | M7c        | 147 519                        | 73 146A 199 263 309+C 315+C 489 523-524d 750            | 16012-16569/1-827     |                        |             |      |                                       |
| HNSZ2-420           | M7c        | 172 223 242 295 519            | 73 146 199 263 309+C 315+C 489 523-524d                 | 16012-16569/1-700     |                        |             |      |                                       |
| HNSZ2-503           | M7c        | 183C 189 223 278 519           | 73 146 199 263 309+C 315+C 489 523-524d 750             | 16013-16569/1-775     |                        |             |      |                                       |
| HNSZ2-513           | M7c        | 173 223 295 362 519            | 73 146 199 263 315+C 489 523-524d 750                   | 16013-16569/1-826     |                        |             |      |                                       |
| HNSZ2-554           | M7c        | 223 295 519                    | 73 146 199 263 309+C 315+C 456 489 523-524d 750         | 16013-16569/1-806     |                        |             |      |                                       |
| HNSZ2-555           | M7c        | 295 319 321 519                | 73 146 199 263 315+C 489 523-524d 750                   | 16013-16569/1-826     |                        |             |      |                                       |
| HNSZ2-560           | M7c        | 223 295                        | 73 146 199 263 309+C 315+C 489 523-524d 750             | 16013-16569/1-806     |                        |             |      |                                       |
| HNSZ2-586           | M7c        | 209 213 223 519                | 73 146 199 263 315+C 489 523-524d 750                   | 16013-16569/1-873     |                        |             |      |                                       |
| HNSZ2-608           | M7c        | 223 295 362 519                | 73 146 152 199 263 309+C 315+C 489 523-524d 750         | 16013-16569/1-824     |                        |             |      |                                       |
| HNSZ2-689           | M7c        | 223 295 519                    | 73 146 199 263 309+C 315+C 489 523-524d 750             | 16013-16569/1-872     |                        |             |      |                                       |
| HNSZ2-726           | M7c        | 223 519                        | 73 146 199 263 315+C 489 523-524d 750                   | 16013-16569/1-771     |                        |             |      |                                       |
| HNSZ2-739           | M7c        | 147 519                        | 73 146A 199 263 309+C 315+C 489 523-524d 750            | 16013-16569/1-806     |                        |             |      |                                       |
| HNSZ2-761           | M7c        | 223 295 519                    | 73 146 152 199 263 309+C 315+C 489 523-524d 750         | 16013-16569/1-826     |                        |             |      |                                       |
| HNSZ2-791           | M7c        | 193 223 295 519                | 73 146 146 199 263 309+C 315+C 489 523-524d 750         | 16013-16569/1-836     |                        |             |      |                                       |
| HN-SZ614            | M7c        | 157 223 519                    | 73 146 199 263 309+C 315+C 489 523-524d 750             | 16009-16569/1-921     |                        |             |      |                                       |
| HN-SZ664            | M7c        | 173 223 519                    | 73 146 199 246 263 309+C 315+C 489 523-524d 750         | 16013-16569/1-902     |                        |             |      |                                       |
| HN-SZ381            | M7c        | 223 319 519                    | 73 146 152 199 263 309+C 315+C 489 523-524d 750         | 16007-16569/1-921     |                        |             |      |                                       |
| HN-SZ165            | M7c        | 223 291 295 296 319 497 519    | 73 146 199 204 263 309+C 315+C 489 523-524d 750         | 16027-16569/1-921     |                        |             |      |                                       |
| HN-SZ775            | M7c        | 223 295 304 519                | 73 199 263 309+C 315+C 489 523-524d 750                 | 16030-16569/1-885     |                        |             | C    | 10398 10400 10586                     |
| HN-SZ500            | M7c        | 223 295 319 519                | 73 146 199 263 309+C 315+C 489 523-524d 750             | 16013-16569/1-911     |                        |             |      |                                       |
| HN-SZ199            | M7c        | 223 295 519                    | 73 146 152 199 263 309+C 315+C 489 523-524d 750         | 16007-16569/1-921     |                        |             |      |                                       |
| HN-SZ9              | M7c        | 223 295 519                    | 73 146 152 199 263 309+C 315+C 489 523-524d 750         | 16017-16569/1-889     |                        |             |      |                                       |
| HN-SZ131            | M7c        | 223 295 519                    | 73 146 152 199 263 309+C 315+C 489 523-524d 750         | 16012-16569/1-921     |                        |             |      |                                       |
| HN-SZ277            | M7c        | 295 319 519                    | 73 143 146 153 199 263 309+C 315+C 489 523-524d 750     | 16067-16569/1-921     |                        |             |      |                                       |
| HN-SZ327            | M7c        | 295 319 519                    | 73 146 199 263 315+C 489 523-524d 709 750               | 16013-16569/1-911     |                        |             |      |                                       |
| HN-SZ128            | M7c        | 051 075 184 223 293T 295 519   | 73 146 152 199 207 263 309+C 315+C 489 523-524d 750 789 | 16033-16569/1-891     |                        |             |      |                                       |
| HN-SZ352            | M7c        | 519                            | 73 146A 199 204 263 309+C 315+C 489 523-524d 750        | 16060-16569/1-921     |                        |             |      |                                       |
| HN-SZ708            | M7c        | 181 519                        | 73 146A 199 263 309+C 315+C 489 523-524d 750            | 16032-16569/1-921     |                        |             |      |                                       |
| HN-SZ776            | M7c        | 362 519                        | 73 146A 199 217 263 309+C 315+C 489 523-524d 750        | 16012-16569/1-921     |                        |             |      |                                       |
| HN-SZ472            | M7c        | 223 295 362 519                | 73 199 263 309+C 315+C 489 500 750                      | 16031-16569/1-911     |                        |             |      |                                       |
| HNSZ2-406           | M7c        | 172 223 311 519                | 73 146 263 315+C 489 523-524d 750                       | 16013-16569/1-836     |                        |             |      |                                       |
| HNSZ2-511           | M7c        | 172 223 311 519                | 73 146 263 315+C 489 523-524d 750                       | 16013-16569/1-783     |                        |             |      |                                       |
| HNSZ2-655           | M7c        | 172 223 274 291 311 519        | 73 146 263 315+C 489 523-524d 750                       | 16013-16569/1-783     |                        |             |      |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>              | Region 2 <sup>b</sup>                        | Coverage <sup>c</sup> | 5176 A/G <sup>d</sup> | 8281-8-289d | 8718 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|---|--|-----------------------|-----------------------|-------------|------|---------------------------------------|
| HN-SZ499            | M7c        | 172 223 311 519                             | 73 146 263 315+C 489 523-524d 750            | 16009-16569/1-921     | +                     |             |      |                                       |
| HNSZ2-405           | M8a        | 184 189 223 298 319 470 471 473 476         | 73 263 309+2C 315+C 489 750                  | 16013-16569/1-784     |                       |             |      |                                       |
| HNSZ2-422           | M8a        | 129 184 185 189 223 298 319 470 471 473 476 | 73 195 257 263 309+C 315+C 489 750           | 16012-16569/1-806     |                       |             |      |                                       |
| HNSZ2-559           | M8a        | 134 184 223 298 319                         | 73 263 309+2C 315+C 489 750                  | 16013-16569/1-859     |                       |             |      |                                       |
| HNSZ2-604           | M8a        | 184 223 293C 298 319 519                    | 73 151 152 263 309+C 315+C 489 750           | 16013-16569/1-783     |                       |             |      |                                       |
| HNSZ2-609           | M8a        | 184 189 223 278 298 319 470 471 473         | 73 152 263 309+C 315+C 489 750               | 16013-16569/1-783     |                       |             |      |                                       |
| HNSZ2-657           | M8a        | 184 189 223 298 319                         | 73 263 309+C 315+C 489 523-524d 750          | 16013-16569/1-826     |                       |             |      |                                       |
| HNSZ2-662           | M8a        | 223 298 319                                 | 73 263 309+C 315+C 489 523-524d 709 750      | 16013-16569/1-836     |                       |             |      |                                       |
| HNSZ2-720           | M8a        | 184 223 298 319                             | 73 263 315+C 489 750                         | 16013-16569/1-806     |                       |             |      |                                       |
| HN-SZ103            | M8a        | 134 184 189 223 298 319                     | 73 263 315+C 489 750                         | 16050-16569/1-911     |                       |             |      |                                       |
| HN-SZ693            | M8a        | 134 184 223 298 319                         | 73 263 309+C 315+C 489 750                   | 16012-16569/1-921     |                       |             |      |                                       |
| HN-SZ769            | M8a        | 134 184 223 298 319                         | 73 263 315+C 489 750                         | 16012-16569/1-921     |                       |             |      |                                       |
| HN-SZ424            | M8a        | 184 189 223 298 319 470 471 473 476         | 73 263 309+2C 315+C 489 750                  | 16079-16569/1-820     |                       |             |      |                                       |
| HN-SZ127            | M8a        | 184 209 223 235h 278 298 319                | 73 263 309+C 315+C 489 750                   | 16015-16569/1-921     |                       |             |      |                                       |
| HN-SZ586            | M8a        | 184 223 274 298                             | 73 152 204 263 309+C 315+C 489 750           | 16009-16569/1-826     |                       |             |      |                                       |
| HN-SZ631            | M8a        | 184 223 274 298                             | 73 152 204 263 309+C 315+C 489 750           | 16007-16569/1-911     |                       |             |      |                                       |
| HN-SZ621            | M8a        | 184 223 293 298 319                         | 73 263 315+C 489 709 750                     | 16013-16569/1-911     |                       |             |      |                                       |
| HN-SZ415            | M8a        | 184 223 293C 298 319 519                    | 73 151 152 263 309+C 315+C 489 750           | 16033-16569/1-921     |                       |             |      |                                       |
| HN-SZ567            | M8a        | 184 223 293d 297 298 319 362 519            | 73 152 263 309+C 315+C 489 750               | 16038-16569/1-921     |                       |             |      |                                       |
| HN-SZ565            | M8a        | 184 223 294 298 319                         | 73 263 309+C 315+C 489 750                   | 16045-16569/1-921     |                       |             |      |                                       |
| HN-SZ292            | M8a        | 184 223 298 311 319                         | 73 263 309+C 315+C 489 750                   | 16015-16569/1-921     |                       |             |      |                                       |
| HN-SZ747            | M8a        | 184 223 298 319                             | 73 152 263 309+2C 315+C 489 750              | 16013-16569/1-921     |                       |             |      |                                       |
| HN-SZ735            | M8a        | 184 223 298 319                             | 73 152 263 309+C 315+C 489 750               | 16013-16569/1-921     |                       |             |      |                                       |
| HN-SZ315            | M8a        | 184 223 298 319                             | 73 195 199 263 315+C 489 750                 | 16013-16569/1-921     |                       |             |      |                                       |
| HN-SZ473            | M8a        | 184 223 298 319                             | 73 195 199 263 315+C 489 750                 | 16023-16569/1-911     |                       |             |      |                                       |
| HN-SZ470            | M8a        | 184 223 298 319                             | 73 263 309+C 315+C 489 750                   | 16023-16569/1-911     |                       |             |      |                                       |
| HN-SZ479            | M8a        | 184 223 298 319 362                         | 73 263 315+C 489 750                         | 16017-16569/1-911     |                       |             |      |                                       |
| HN-SZ497            | M8a        | 182 184 189 223 278 298 319 470 471 473     | 73 152 263 309+C 315+C 333+A 489 750         | 16016-16569/1-921     |                       |             |      |                                       |
| HNSZ2-425           | M9a        | 223 234 316 362                             | 73 263 309+C 315+C 489 750                   | 16013-16569/1-873     |                       |             |      |                                       |
| HNSZ2-436           | M9a        | 223 234 316 357                             | 73 153 263 315+C 489 573+C 750               | 16013-16569/1-873     |                       |             |      |                                       |
| HNSZ2-466           | M9a        | 223 234 271 362                             | 73 153 263 309+C 315+C 489 750               | 16013-16569/1-859     |                       |             |      |                                       |
| HNSZ2-556           | M9a        | 172 223 234 316 362                         | 73 153 263 309+C 315+C 489 750               | 16013-16569/1-783     |                       |             |      |                                       |
| HNSZ2-580           | M9a        | 223 234 291 316 362                         | 73 153 263 309+C 315+C 489 750               | 16013-16569/1-826     |                       |             |      |                                       |
| HNSZ2-676           | M9a        | 172 223 234 291 316 362                     | 73 153 263 309+C 315+C 489 750               | 16013-16569/1-869     |                       |             |      |                                       |
| HNSZ2-731           | M9a        | 223 234 316 362 526                         | 73 153 263 315+C 489 750                     | 16013-16569/1-836     |                       |             |      |                                       |
| HN-SZ35             | M9a        | 223 234 240 362                             | 73 153 263 309+C 315+C 489 750               | 16042-16569/1-921     |                       |             |      |                                       |
| HN-SZ3              | M9a        | 223 234 356 362                             | 73 150 153 263 309+2C 315+C 385 489 750      | 16032-16569/1-911     |                       |             |      |                                       |
| HN-SZ576            | M9a        | 223 234 362 519                             | 73 153 249 263 309+C 315+C 489 750           | 16009-16569/1-911     |                       |             |      |                                       |
| HN-SZ299            | M9a        | 172 223 234 291 316 362                     | 73 263 315+C 489 750                         | 16042-16569/1-921     |                       |             |      |                                       |
| HN-SZ519            | M9a        | 223 224 234 316 362                         | 73 152 153 263 309+C 315+C 489 750           | 16032-16569/1-921     |                       |             |      |                                       |
| HN-SZ594            | M9a        | 223 234 256 291 316 362                     | 73 263 309+C 315+C 489 750                   | 16010-16569/1-921     |                       |             |      |                                       |
| HN-SZ750            | M9a        | 223 234 291 316 362                         | 73 153 263 309+C 315+C 489 750               | 16013-16569/1-921     |                       |             |      |                                       |
| HN-SZ549            | M9a        | 223 234 316 362                             | 73 152 153 263 315+C 489 750                 | 16091-16569/1-911     |                       |             |      |                                       |
| HN-SZ81             | M9a        | 223 234 316 362                             | 73 263 309+C 315+C 489 711 750               | 16033-16569/1-911     |                       |             |      |                                       |
| HN-SZ218            | M9a        | 223 234 316 362 519                         | 73 153 199 249 263 309+2C 315+C 489 750      | 16015-16569/1-921     |                       |             |      |                                       |
| HN-SZ155            | M9a        | 223 234 316 362 526                         | 73 153 263 315+C 489 750                     | 16044-16569/1-921     |                       |             |      |                                       |
| HNSZ2-535           | M9b        | 051 209 223 362 519                         | 73 153 263 315+C 489 532 573+4C              | 16013-16569/1-573     | +                     |             |      |                                       |
| HNSZ2-654           | N10        | 172 183C 189 223 362                        | 73 185 189 263 309+2C 315+C 523-524d 750     | 16013-16569/1-908     |                       |             |      |                                       |
| HN-SZ343            | N10        | 111 172 183C 189 223 362 519                | 73 185 189 195 234 263 309+C 315+C 523-524d  | 16017-16569/1-911     |                       |             |      |                                       |
| HN-SZ151            | N11        | 093 213 223 243 298h 355 519                | 73 195 200 204h 263 315+C 516 750 813        | 16042-16569/1-921     |                       |             | G    |                                       |
| HN-SZ671            | N21        | 193 223 519                                 | 73 150 195 263 309+C 315+C 337d 523-524d 750 | 16017-16569/1-852     |                       |             |      |                                       |
| HNSZ2-410           | N9a        | 183C 189 223 257A 261                       | 73 150 263 309+2C 315+C 750                  | 16012-16569/1-806     |                       |             |      |                                       |
| HNSZ2-415           | N9a        | 129 223 257A 261                            | 73 150 228 263 309+C 315+C 750               | 16012-16569/1-836     |                       |             |      |                                       |
| HNSZ2-416           | N9a        | 111 129 223 257A 261                        | 73 150 263 309+C 315+C 745 750               | 16012-16569/1-805     |                       |             |      |                                       |
| HNSZ2-421           | N9a        | 172 223 257A 261 311 390 519                | 73 150 263 309+C 315+C 750                   | 16012-16569/1-806     |                       |             |      |                                       |
| HNSZ2-433           | N9a        | 129 183C 189 223 227 257A 258 261           | 73 143 150 263 315+C 750                     | 16012-16569/1-836     |                       |             |      |                                       |
| HNSZ2-485           | N9a        | 173 223 257A 324                            | 73 150 183 263 309+C 315+C 524+AC 750        | 16013-16569/1-836     |                       |             |      | 12060-12770=12358 12372 12706         |
| HNSZ2-486           | N9a        | 129 223 257A 261 519                        | 73 150 263 309+2C 315+C 750                  | 16013-16569/1-806     |                       |             |      |                                       |
| HNSZ2-490           | N9a        | 123 248 257A 261 519                        | 73 150 263 309+C 315+C 573+5C                | 16013-16569/1-573     |                       |             |      |                                       |
| HNSZ2-517           | N9a        | 172 193 223 257A 261 311 519                | 73 150 195 263 309+C 315+C 750               | 16013-16569/1-806     |                       |             |      |                                       |
| HNSZ2-526           | N9a        | 189 223 257A 261                            | 73 150 263 309+C 315+C 709 750               | 16013-16569/1-822     |                       |             |      |                                       |
| HNSZ2-536           | N9a        | 111 129 223 257A 261                        | 73 150 263 309+C 315+C 750                   | 16013-16569/1-908     |                       |             |      |                                       |
| HNSZ2-539           | N9a        | 183C 189 223 257A 261 311                   | 73 143 150 263 315+C 750                     | 16013-16569/1-851     |                       |             |      |                                       |
| HNSZ2-562           | N9a        | 111 129 223 257A 261 311                    | 73 150 263 309+2C 315+C 750                  | 16013-16569/1-845     |                       |             |      |                                       |
| HNSZ2-661           | N9a        | 086 223 257A 519                            | 73 150 263 309+C 315+C 750                   | 16013-16569/1-826     |                       |             |      | 12060-12770=12358 12372 12706         |
| HNSZ2-703           | N9a        | 223 257A 261                                | 73 150 263 315+C 750                         | 16013-16569/1-841     |                       |             |      |                                       |
| HNSZ2-705           | N9a        | 093 223 257A 519                            | 73 150 152 263 309+C 315+C 750               | 16013-16569/1-836     |                       |             |      | 12060-12770=12127 12358 12372 12706   |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>                 | Region 2 <sup>b</sup>                               | Coverage <sup>c</sup> | 5176_A/tu <sup>d</sup> | 8281-8-289d | 8718 | 12406 | 10689 | 10689 | 12060-12770=12358 12372 12706 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|--|---|-----------------------|------------------------|-------------|------|-------|-------|-------|-------------------------------|---------------------------------------|
| HNSZ2-725           | N9a        | 176 257A 261                                   | 73 150 263 309+C 315+C 709 750                      | 16013-16569/1-829     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-825           | N9a        | 093 111 129 223 257A 261                       | 73 150 195 263 309+C 315+C 524+AC 750               | 16013-16569/1-872     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-826           | N9a        | 080 223 257A 519                               | 73 150 189 263 309+C 315+C 750                      | 16013-16569/1-806     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ353            | N9a        | 129 223 248 257A 261                           | 73 150 263 315+C 750                                | 16048-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ654            | N9a        | 129 223 257A 261                               | 73 150 195 263 309+C 315+C 750                      | 16017-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ267            | N9a        | 172 189 223 257A 261 293C                      | 73 150 195 204 226 263 315+C 750                    | 16060-16569/1-892     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ432            | N9a        | 172 193 223 257A 261 311 519                   | 73 150 195 263 315+C 750                            | 16079-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ553            | N9a        | 172 217 223 257A 261                           | 73 150 263 309+C 315+C 750                          | 16010-16569/1-911     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ632            | N9a        | 172 223 257A 261                               | 73 150 263 309+C 315+C 750                          | 16009-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ462            | N9a        | 183C 189 223 256h 257A 261                     | 73 143 150 263 309+C 315+C 750                      | 16032-16569/1-911     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ516            | N9a        | 183C 189 223 257A 261                          | 73 150 263 309+C 315+C 385 750                      | 16033-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ427            | N9a        | 189 223 257A 261                               | 73 150 263 309+2C 315+C 709 750                     | 16033-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ240            | N9a        | 223 257A                                       | 73 150 263 309+C 315+C 573+5C 750                   | 16032-16569/1-863     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ372            | N9a        | 223 257A 261 311                               | 73 150 263 315+C 750                                | 16051-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ210            | N9a        | 223 257A 261 311 390                           | 73 150 263 309+C 315+C 524+AC 750                   | 16017-16569/1-851     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ760            | N9a        | 223 257A 261 311 390                           | 73 150 263 309+C 315+C 524+AC 750                   | 16013-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ379            | N9a        | 223 257A 261 311 390                           | 73 150 263 309+C 315+C 750                          | 16086-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ193            | N9a        | 223 257A 519                                   | 73 150 263 309+C 315+C 750                          | 16012-16569/1-790     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ226            | N9a        | 257A 261                                       | 73 146 150 263 309+C 315+C 750                      | 16030-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ770            | N9a        | 093 129 189 223 257A 261 278                   | 73 150 263 315+C 460 750                            | 16012-16569/1-856     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ777            | N9a        | 111 129 209 223 257A 261                       | 73 114 150 263 309+2C 315+C 523-524d 573d 750       | 16012-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ465            | N9a        | 111 129 223 257A 260 261                       | 73 150 263 309+C 315+C 750                          | 16032-16569/1-911     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ318            | N9a        | 111 129 223 257A 261                           | 73 150 198 263 309+2C 315+C 750                     | 16012-16569/1-891     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ120            | N9a        | 111 129 223 257A 261                           | 73 150 263 309+C 315+C 750                          | 16044-16569/1-833     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ380            | N9a        | 111 129 223 257A 261                           | 73 150 263 309+C 315+C 750                          | 16012-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ143            | N9a        | 111 129 223 257A 261                           | 73 150 263 309+C 315+C 750                          | 16024-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ48             | N9a        | 172 223 257A 261 497                           | 73 150 263 309+C 315+C 750                          | 16018-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ480            | N9a        | 223 250 257A 261 311                           | 73 150 263 309+2C 315+C 523-524d 750                | 16023-16569/1-911     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ647            | N9a        | 145 172 223 245 250 250 257A 261               | 73 150 263 309+2C 315+C 524+AC 745 750              | 16010-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ356            | N9a        | 145 172 223 245 250 250 257A 261               | 73 150 263 309+C 315+C 524+AC 745 750               | 16013-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-427           | R11        | 183C 189 304 311 519                           | 73 185 189 204 263 309+2C 315+C 709 750             | 16012-16569/1-806     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-479           | R11        | 183C 189 304 311 519                           | 73 185 189 204 263 309+C 315+C 709 750              | 16012-16569/1-806     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-520           | R11        | 093 182C 183C 189 311 365 519                  | 73 185 189 263 309+C 315+C 709 750                  | 16013-16569/1-908     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-546           | R11        | 092 145 182C 183C 189 311 390 519              | 73 185 189 263 309+C 315+C 709 750 789              | 16013-16569/1-908     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-820           | R11        | 093 183C 189 311 390 519                       | 73 185 189 263 309+C 315+C 709 750                  | 16013-16569/1-908     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ261            | R11        | 182C 183C 189 311 519                          | 73 185 189 263 309+C 315+C 523-524d 709 750         | 16061-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ520            | R11        | 183C 189 209 311 365 519                       | 73 165 185 189 194 263 309+C 315+C 709 750          | 16017-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ410            | R11        | 183C 189 304 311 519                           | 73 185 189 204 263 309+C 315+C 709 750              | 16060-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ690            | R11        | 086 092 182C 183C 189 311 390 519              | 73 152 185 189 234 263 315+C 503 709 750            | 16012-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ105            | R9*        | 148 304 390                                    | 73 263 309+C 315+C 709 750                          | 16013-16569/1-911     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ51             | R9*        | 157 158 304                                    | 73 151 199 263 309+C 315+C 479 750                  | 16016-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ286            | R9*        | 189 274 304 311 390 519                        | 73 152 263 309+C 315+C 523-524d 750                 | 16055-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-463           | R9b        | 189 213 304 390 519                            | 73 151 263 309+C 315+C 750                          | 16012-16569/1-836     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-470           | R9b        | 082 145 192 243 304 309 390 519                | 73 263 309+C 315+C 523-524d 750                     | 16013-16569/1-771     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-514           | R9b        | 192 304 309 362 390 519                        | 73 183 263 315+C 523-524d 750                       | 16013-16569/1-783     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-576           | R9b        | 093 126 189 192 304 309 390 519                | 73 263 279 309+C 315+C 523-524d 750                 | 16013-16569/1-806     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-578           | R9b        | 274 304 309 390 519                            | 73 146 183 263 309+C 315+C 523-524d 750             | 16013-16569/1-826     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-640           | R9b        | 124 148 170 304 309 390 519                    | 73 263 309+C 315+C 750                              | 16013-16569/1-806     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-743           | R9b        | 093 192 304 309 390 519                        | 73 152 263 309+C 315+C 523-524d 750                 | 16013-16569/1-792     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-799           | R9b        | 124 148 290 304 309 390 519                    | 73 263 309+C 315+C 318 750                          | 16013-16569/1-806     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-823           | R9b        | 145 192 243 295 304 309 390 519                | 73 183 263 315+C 523-524d 750                       | 16013-16569/1-783     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ77             | R9b        | 124 148 304 309 390 519                        | 73 263 309+C 315+C 750                              | 16017-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ306            | R9b        | 124 148 304 309 390 519                        | 73 263 309+C 315+C 750                              | 16042-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ452            | R9b        | 145 192 243 304 309 390 519                    | 73 183 263 309+C 315+C 523-524d 750                 | 16012-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ676            | R9b        | 145 192 243 304 309 390 519                    | 73 183 263 315+C 523-524d 750                       | 16012-16569/1-767     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ670            | R9b        | 182C 183T 189 213 255h 260 299 304 309 390 519 | 73 195 263 315+C 523-524d 750                       | 16013-16569/1-873     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ122            | R9b        | 189 288 304 309 390 519                        | 73 143 183 263 309+2C 315+C 479 523-524d 573+4C 750 | 16055-16569/1-833     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ119            | R9b        | 192 295h 304 309 390 519                       | 73 152 263 309+C 315+C 523-524d 750                 | 16018-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ329            | R9b        | 192 304 309 320 362 390 519                    | 73 183 263 315+C 523-524d 750                       | 16084-16569/1-911     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ431            | R9b        | 192 304 309 362 390 519                        | 73 183 263 315+C 523-524d 750                       | 16079-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ569            | R9b        | 192 304G 304 320 390 519                       | 73 183 263 309+C 315+C 523-524d 750                 | 16037-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ76             | R9b        | 304 309 390 519                                | 73 152 183 263 315+C 523-524d 750                   | 16017-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ217            | R9b        | 304 309 390 519                                | 73 183 263 315+C 523-524d 750                       | 16044-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ223            | R9b        | 067 304 309 390 519                            | 73 151 263 309+C 315+C 750                          | 16050-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ387            | R9b        | 093 192 304 309 390 519                        | 73 152 263 309+C 315+C 523-524d 750                 | 16050-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HN-SZ728            | R9b        | 304 362 519                                    | 73 152 263 315+C 750                                | 16013-16569/1-921     |                        |             |      |       |       |       |                               |                                       |
| HNSZ2-755           | T1a        | 126 163 186 189 294 519                        | 73 152 195 263 309+2C 315+C 709 750                 | 16013-16569/1-806     |                        |             |      |       |       |       | 12368-13158=12633A            |                                       |

| Sample <sup>a</sup> | Haplogroup | Region 1 (16000+) <sup>b</sup>          | Region 2 <sup>b</sup>                                      | Coverage <sup>c</sup> | 5176 AluI <sup>d</sup> | 8281-8-289d <sup>d</sup> | 8718 | 12406 | Additional polymorphisms <sup>e</sup> |
|---------------------|------------|---|--|-----------------------|------------------------|--------------------------|------|-------|---------------------------------------|
|                     |            |   |  |                       | 5176 AluI <sup>d</sup> | 8281-8-289d <sup>d</sup> | 5108 | 10689 |                                       |
|                     |            |   |  |                       | 5176 AluI <sup>d</sup> | 8281-8-289d <sup>d</sup> | 5099 | 10689 |                                       |
| HNSZ2-432           | Y          | 126 213 231 266 519                     | 73 146 207 263 309+C 315+C 750                             | 16012-16569/1-806     |                        |                          |      |       |                                       |
| HNSZ2-704           | Y          | 126 231 266 519                         | 73 146 263 315+C 750                                       | 16013-16569/1-890     |                        |                          |      |       |                                       |
| HNSZ2-821           | Y          | 231 519                                 | 73 146 263 309+C 315+C 750                                 | 16013-16569/1-806     |                        |                          |      |       | 14607-15397=14693 14766 15326         |
| HN-SZ485            | Y          | 126 155 173 231 319 399 519             | 73 146 263 309+C 315+C 709 750                             | 16023-16569/1-911     |                        |                          |      |       |                                       |
| HN-SZ412            | Y          | 126 213 231 266 519                     | 73 146 207 263 309+C 315+C 750                             | 16012-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ215            | Y          | 126 231 266 325 519                     | 73 146 200 207 263 309+C 315+C 523-524d 750                | 16023-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ448            | Y          | 126 231 311                             | 73 263 309+C 315+C 482 523-524d 750                        | 16012-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ189            | Y          | 231 519                                 | 73 146 152h 263 309+C 315+C 750                            | 16012-16569/1-921     |                        |                          |      |       |                                       |
| HNSZ2-409           | Z          | 185 223 260 298                         | 73 151 152 249d 263 315+C 489 750                          | 16012-16569/1-829     |                        |                          |      |       |                                       |
| HNSZ2-468           | Z          | 185 209 223 260 298                     | 73 143 152 249d 263 309+C 315+C 489 750                    | 16013-16569/1-836     |                        |                          |      |       |                                       |
| HNSZ2-480           | Z          | 185 223 260 298 317T                    | 73 151 152 249d 263 309+C 315+C 489 523-524d 750           | 16013-16569/1-873     |                        |                          |      |       |                                       |
| HNSZ2-519           | Z          | 185 189 223 260 298 380                 | 73 152 249d 263 315+C 489 723 750                          | 16013-16569/1-836     |                        |                          |      |       |                                       |
| HNSZ2-531           | Z          | 185 209 223 260 298                     | 73 143 152 249d 263 309+C 315+C 489 750                    | 16013-16569/1-783     |                        |                          |      |       |                                       |
| HNSZ2-631           | Z          | 166 185 223 260 298 362 368             | 73 152 249d 263 309+C 315+C 489 750                        | 16013-16569/1-872     |                        |                          |      |       |                                       |
| HNSZ2-682           | Z          | 185 209 223 260 298                     | 73 152 249d 263 309+C 315+C 489 750                        | 16013-16569/1-869     |                        |                          |      |       |                                       |
| HNSZ2-766           | Z          | 051 185 223 260 298                     | 73 152 214 249d 263 315+C 489 709 750                      | 16013-16569/1-873     |                        |                          |      |       |                                       |
| HNSZ2-811           | Z          | 145 185 223 260 298 302                 | 73 152 249d 263 315+C 489 750                              | 16013-16569/1-826     |                        |                          |      |       |                                       |
| HN-SZ43             | Z          | 129 185 223 260 297 298 302             | 73 152 195 249d 263 309+2C 315+C 474 489 523-524d 549G 750 | 16035-16569/1-863     |                        |                          |      |       |                                       |
| HN-SZ355            | Z          | 129 185 223 260 298                     | 73 151 152 249d 263 309+C 315+C 489 750                    | 16012-16569/1-911     |                        |                          |      |       |                                       |
| HN-SZ346            | Z          | 136 185 189 223 260 298 519             | 73 152 249d 263 315+C 489 750                              | 16027-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ307            | Z          | 136 185 223 260 264 265 298 325 519 527 | 73 152 249d 263 309+2C 310h 315+C 489 750                  | 16013-16569/1-894     |                        |                          |      |       |                                       |
| HN-SZ417            | Z          | 166 185 223 260 298 362 368             | 73 152 249d 263 309+C 315+C 489 750                        | 16044-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ602            | Z          | 185 189d 223 260 298                    | 73 152 207 249d 263 309+C 315+C 489 750                    | 16010-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ403            | Z          | 185 209 223 260 298                     | 73 143 152 249d 263 309+C 315+C 489 750                    | 16012-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ590            | Z          | 185 209 223 260 298 368h 437            | 73 143 152 249d 263 309+C 315+C 489 513 750                | 16013-16569/1-911     |                        |                          |      |       |                                       |
| HN-SZ626            | Z          | 185 209 223 260 298 368h 437            | 73 143 152 249d 263 309+C 315+C 489 513 750                | 16007-16569/1-911     |                        |                          |      |       |                                       |
| HN-SZ44             | Z          | 185 223 260 264 298 302 317T 362        | 73 151 152 249d 263 309+C 315+C 489 750                    | 16032-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ70             | Z          | 185 223 260 298                         | 73 146 195 207 249d 263 315+C 489 750                      | 16091-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ665            | Z          | 185 223 260 298                         | 73 151 152 249d 263 309+C 315+C 489 750                    | 16017-16569/1-911     |                        |                          |      |       |                                       |
| HN-SZ596            | Z          | 185 223 260 298                         | 73 152 214 249d 263 315+C 489 709 750                      | 16007-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ281            | Z          | 185 223 260 298                         | 73 152 249d 263 309+C 315+C 489 750                        | 16081-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ41             | Z          | 185 223 260 298                         | 73 210 249d 263 315+C 489 750                              | 16017-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ618            | Z          | 185 223 260 298 302                     | 73 114 151 152 249d 263 315+C 489 750                      | 16013-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ172            | Z          | 185 223 260 298 302                     | 73 151 152 249d 263 309+C 315+C 489 750                    | 16027-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ390            | Z          | 185 223 260 298 302                     | 73 151 152 249d 263 309+C 315+C 489 750                    | 16050-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ296            | Z          | 185 223 260 298 325 380 399             | 73 152 249d 263 309+C 315+C 489 750                        | 16016-16569/1-911     |                        |                          |      |       |                                       |
| HN-SZ265            | Z          | 185 260 298                             | 73 197 249d 263 315+C 325 489 750                          | 16023-16569/1-921     |                        |                          |      |       |                                       |
| HN-SZ488            | Z          | 093 185 192 223 260 298                 | 73 152 195 249d 263 309+C 315+C 489 709 750                | 16074-16569/1-911     |                        |                          |      |       |                                       |

Note: Positions are numbered according to the revised Cambridge reference sequence (rCRS) of Andrews et al<sup>2</sup>; mtDNAs that show no sequence variation in a sequenced region compared with the revised Cambridge reference sequence are labeled as "rCRS". "A", "G", "C", "T" in column "F" <sup>a</sup> Hunan is abbreviated as "HN". "CT" and "SZ" denote control and schizophrenia patient, respectively. Sample designation in bold means that this mtDNA has been completely sequenced.

<sup>b</sup> Suffixes "A", "G", "C", and "T" indicate transversions, suffix "h" denotes heteroplasmic mutation; "d" indicates deletions, and "+" means insertion; indels are recorded at the last possible site. When sequence information was not available, items have been left blank.

<sup>c</sup> The sequenced fragments (regions 1 and 2) in certain mtDNA relative to the rCRS.

<sup>d</sup> "-" and "+" denote the absence and presence of the restriction site at position 5176 for AluI or deletion at position 8281-8289 in certain mtDNA. All mtDNAs belonging to haplogroup D (including its subhaplogroups) were characteristic of -5176 AluI. When sequence information was not

<sup>e</sup> Sequence variants in coding regions that were sequenced for further confirmation of haplogroup status of certain mtDNA. When sequence information was not available, items have been left blank.

**Table S2. Private non-synonymous, mt-rRNA and mt-tRNA variants in B5a complete mtDNA sequences of Chinese patients with schizophrenia**

| Subject <sup>a</sup> | Haplogroup | Nucleotide variant<br>(amino acid change) | Gene    | Reported<br>(population context) <sup>b</sup> | Reported<br>(disease context) <sup>b</sup> | Conservation <sup>c</sup> | Haplogroup specific variant <sup>d</sup>  |
|----------------------|------------|---|---------|---|--|---------------------------|---|
| HN-SZ291             | B5a1c      | m.3866T>C (p.I187T)                       | MT-ND1  | Yes   | No   | No                        | Yes (L0a1a, J1c2k)  |
|                      |            | m.8701A>G (p.T59A)                        | MT-ATP6 | Yes   | No   | Yes                       | Yes (N21, R0a2e, H1aw, U5b3e)<br>Yes (L2a5, L3i1a, L3x2b, G2a1b, I2,<br>J1c3i, B5b2a1b, H1c14, H1at,<br>H13a1a2b, H20b, H28a1,<br>K1a1b2a1) |
| HN-SZ398             | B5a2a1     | m.15758A>G (p.I338V)                      | MT-CYB  | Yes   | No   | No                        |   |

<sup>a</sup> Complete mtDNA genomes of HN-SZ246, HN-SZ284 and HN-SZ364 contained no private non-synonymous, mt-rRNA, and mt-tRNA variants, and were not included in the table.

<sup>b</sup> The search was performed on Feb 27, 2014 using the guideline described in our previous study (Bandelt et al., 2009).

<sup>c</sup> The conservation analysis was performed according to the method described in our previous study (Fan and Yao, 2011).

<sup>d</sup> The column “Haplogroup-specific variant” refers to the presence or absence of the corresponding variants in the world mtDNA phylogeny displayed at <http://www.phylotree.org/tree/main.htm> (mtDNA tree Build 16; 19 Feb 2014). In round brackets we indicated the haplogroup status as it defined in that tree.

**Table S3. Prevalence of schizophrenia across China**

| Location <sup>a</sup> | Population      | Sample size                 | Point prevalence          | Lifetime prevalence | Reference            |
|-----------------------|-----------------|-----------------------------|---------------------------|---------------------|----------------------|
|                       |                 |                             | (% <sub>oo</sub> )        | (% <sub>oo</sub> )  |                      |
| Tibet (Xizang)        | Tibetan         | 5145                        | 3.69                      | NA                  | (Wei et al., 2007)   |
| Guizhou               | General Chinese | 7970                        | 3.26                      | 3.76                | (Wu et al., 2003)    |
| Hebei                 | General Chinese | 20716                       | 5.46                      | 6.62                | (Cui et al., 2007)   |
| Jiangxi               | General Chinese | 15939                       | 5.77                      | 7.78                | (Lu et al., 2004)    |
| Shandong              | General Chinese | 67901 (88822 <sup>b</sup> ) | 3.37 (2.96 <sup>b</sup> ) | NA                  | (Weng et al., 1998)  |
| Yichun, Jiangxi       | General Chinese | 17779                       | 5.34                      | 6.52                | (Wan et al., 2002)   |
| Beijing               | General Chinese | NA <sup>c</sup>             | 6.19                      | 7.21                | (Zhang et al., 1994) |
| Fuyang, Anhui         | General Chinese | 33332                       | 4.11                      | 4.77                | (Wang et al., 2002)  |
| Yuanyang, Yunnan      | Hani            | 15369                       | 2.14                      | 2.54                | (Yang et al., 2009)  |
| Baoding, Hebei        | General Chinese | 9021                        | 5.42                      | 6.20                | (Zhang et al., 2008) |
| Wenzhou, Zhejiang     | General Chinese | 18173                       | 6.00                      | 7.37                | (Tang et al., 2005)  |
| Yancheng, Jiangsu     | General Chinese | 2895                        | 4.15                      | 4.84                | (Li et al., 2003)    |
| Zhongshan, Guangdong  | General Chinese | 2909                        | 6.88                      | 7.56                | (Hu et al., 2003)    |

<sup>a</sup> We used the latitude and longitude of the capital of each province in contour map construction unless the location was well defined to city or county level in the original reference.

<sup>b</sup> Data in the bracket was collected in 1984.

<sup>c</sup> NA = Not available

**Table S4. Published mtDNA data sets reanalyzed in this study**

| <b>Location <sup>a</sup></b>  | <b>Population</b>  | <b>Sample size</b> | <b>No. of B5a (%) <sup>b</sup></b> | <b>Reference</b>  |
|-------------------------------|--|--------------------|------------------------------------|---|
| Hefei, Anhui                  | Han Chinese  | 42                 | 2 (4.76)                           | (Wen et al., 2004a)   |
| Changting and Longyan, Fujian | Han Chinese  | 54                 | 3 (5.56)                           | (Wen et al., 2004a)   |
| Gansu                         | Han Chinese  | 45                 | 0 (0.00)                           | (Wen et al., 2004a)   |
| Guangdong                     | Han Chinese, Teochew, Pou, Mien, Hakka   | 545                | 24 (4.40)                          | (Kivisild et al., 2002; Yao et al., 2002a; Wen et al., 2005; Li et al., 2007a; Chen et al., 2008a; Wang et al., 2010) |
| Guangxi                       | Han Chinese, Zhuang, Hmong, Mien, Caolan, Maonan, Mulam, Palyu, Blue-Gelao, Yerong, Sui, E | 561                | 46 (8.20)                          | (Wen et al., 2004a; Wen et al., 2005; Li et al., 2007a)   |
| Guizhou                       | Tujia, Dong, Yi, Gelao, Qau, Ai-Cham, Mak, Mollao, Then                                    | 253                | 13 (5.14)                          | (Li et al., 2007a; Li et al., 2007b)  |
| Hainan                        | Jiamao, Cun, Hlai-Qi, Lingao, Danga  | 162                | 10 (6.17)                          | (Li et al., 2007a)  |
| Heilongjiang                  | Han Chinese, Daur, Hezhen  | 107                | 0 (0.00)                           | (Powell et al., 2007)   |
| Hubei                         | Han Chinese, Dong  | 52                 | 3 (5.77)                           | (Yao et al., 2002a; Li et al., 2007a)   |
| Hunan                         | Han Chinese, Hmong, Mien, Tujia  | 322                | 18 (5.59)                          | (Oota et al., 2002; Wen et al., 2004b; Wen et al., 2005)  |
| Nanjing, Jiangsu              | Han Chinese  | 67                 | 3 (4.48)                           | (Wen et al., 2004a)   |
| Nanchang, Jiangxi             | Han Chinese  | 23                 | 1 (4.45)                           | (Wen et al., 2004a)   |
| Liaoning                      | Han Chinese, Manchu  | 133                | 3 (2.26)                           | (Yao et al., 2002a; Wen et al., 2004a; Powell et al., 2007)   |

|                    |   |     |           |  |
|--------------------|---|-----|-----------|--|
| Inner Mongolia     | Han Chinese, Korean, Daur, Mongolia, Ewenki   | 356 | 1 (0.28)  | (Kong et al., 2003; Wen et al., 2004a; Powell et al., 2007)  |
| Qinghai            | Han Chinese, Tu, Tibetan  | 208 | 1 (0.48)  | (Wen et al., 2004a; Chen et al., 2008b)  |
| Shandong           | Han Chinese   | 174 | 0 (0.00)  | (Wang et al., 2000; Yao et al., 2002a; Yao et al., 2003)   |
| Shaanxi            | Han Chinese   | 137 | 2 (1.46)  | (Oota et al., 2002; Wen et al., 2004a)   |
| Shanghai           | Han Chinese, DornQdayc  | 73  | 2 (2.74)  | (Wen et al., 2004a; Li et al., 2007a)  |
| Sichuang           | Han Chinese, Tibetan  | 132 | 9 (6.82)  | (Wen et al., 2004a; Zhao et al., 2010)   |
| Taiwan             | Han Chinese   | 155 | 3 (1.94)  | (Tsai et al., 2001)  |
| Xinjiang           | Han Chinese, Xibe, Uygur  | 173 | 3 (1.73)  | (Yao et al., 2002a; Powell et al., 2007)   |
| Yunnan             | Han Chinese, Bai, Naxi, Yi, Aini, Hani, Jino, Lahu, Buyang, Dai-lu, Lachi, Mien, Gelao, Pubiao, Hmong, Bugan, Va, Tibetan | 844 | 41 (4.86) | (Qian et al., 2001; Yao et al., 2002a; Yao et al., 2002b; Wen et al., 2004a; Wen et al., 2005; Li et al., 2007a) |
| Hangzhou, Zhejiang | Han Chinese,  | 61  | 2 (3.28)  | (Wen et al., 2004a)  |
| Vietnam            | Mnong, Kinh, Viet   | 297 | 23 (7.74) | (Li et al., 2007a; Irwin et al., 2008; Jin et al., 2009)   |
| Hong Kong          | Residents of urban Hong Kong with diverse Chinese ancestry  | 377 | 21 (5.57) | (Irwin et al., 2009)   |

|             |           |      |           |  |
|-------------|-----------|------|-----------|--|
| Thailand    | Thai      | 264  | 18 (6.82) | (Yao et al., 2002c; Jin et al., 2009; Zimmermann et al., 2009)   |
| Japan       | Japanese  | 1046 | 7 (0.67)  | (Horai et al., 1996; Seo et al., 1998; Nishimaki et al., 1999; Imaizumi et al., 2002; Maruyama et al., 2003; Nagai et al., 2003; Mabuchi et al., 2007) |
| South Korea | Korean    | 1182 | 21 (1.78) | (Horai et al., 1996; Pfeiffer et al., 1998; Allard et al., 2004; Jin et al., 2006; Lee et al., 2002; Lee et al., 2006)                                 |
| Mongolia    | Mongolian | 460  | 1 (0.22)  | (Kolman et al., 1996; Keyser-Tracqui et al., 2003; Keyser-Tracqui et al., 2006)  |

<sup>a</sup> We used the latitude and longitude of the capital of each province in contour map construction.

<sup>b</sup> Haplogroup B5a was defined according to the presence of haplogroup motif “16140-16189-16266A”.

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