

Mapping leprosy-associated coding variants of interleukin genes by targeted sequencing

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Abstract

Previous genotyping-based assays have identified non-coding variants of several interleukins (ILs) being associated with genetic susceptibility to leprosy. However, understanding of the involvement of coding variants within all IL family genes in leprosy was still limited. To obtain the full mutation spectrum of all ILs in leprosy, we performed a targeted deep sequencing of coding regions of 58 ILs genes in 798 leprosy patients (age 56.2 ± 14.4 ; female 31.5%) and 990 healthy controls (age 38.1 ± 14.0 ; female 44.3%) from Yunnan, Southwest China. mRNA expression alterations of ILs in leprosy skin lesions or in response to *M. leprae* treatment were estimated by using publicly available expression datasets. Two coding variants in *IL27* (rs17855750, p.S59A, $p = 4.02 \times 10^{-8}$, odds ratio [OR] = 1.748) and *IL1RN* (rs45507693, p.A106T, $p = 1.45 \times 10^{-5}$, OR = 3.629) were significantly associated with leprosy risk. mRNA levels of *IL27* and *IL1RN* were upregulated in whole blood cells after *M. leprae* stimulation. These data showed that *IL27* and *IL1RN* are leprosy risk genes. Further functional study is required for characterizing the exact role of ILs in leprosy.

KEY WORDS

coding variants, genetic susceptibility, interleukin, leprosy, next generation sequencing

1 | INTRODUCTION

Leprosy (OMIM 609888) is a chronic infectious disease caused by the intracellular pathogen *Mycobacterium leprae* (*M. leprae*).¹ Despite the fact that leprosy was eliminated in many countries, it is still a public health problem, with about 200 000 new cases reported every year worldwide.² Development of leprosy is highly determined by host genetic background and immune status.^{3–5}

Previous genetic studies, especially genome-wide association studies (GWASs), have identified dozens of leprosy susceptibility variants within immune genes, such as, *NOD2*,⁶ *LRRK2*,^{6–8} and *CFH*.^{9,10} Among these risk genes, interleukin family genes (ILs) were frequently reported to be associated with leprosy susceptibility. For instance, two large-scale GWASs have identified *IL23R* and *IL4R* as leprosy susceptibility genes,^{11,12} whereas massive genotyping identified *IL12B* and *IL18R1*.¹³ Besides these classical GWASs that focused on

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common noncoding variants, exome chip-based GWAS had also identified coding variants in *IL23R* (rs76418789) and *IL27* (rs181206) associated with leprosy.¹⁴ As the GWAS or chip array-based genotyping studies usually analyze limited number of tagging SNPs, it would be difficult to identify the functionally pathogenic/causal variants, which could be achieved by deep re-sequencing.¹⁵ Moreover, current knowledge about the involvement of ILs in leprosy is still limited.

In this study, we aimed to validate the association of *ILs* with leprosy and to obtain the full spectrum of all coding-variants in these genes that might influence leprosy susceptibility by using targeted next-generation sequencing.

2 | MATERIALS AND METHODS

2.1 | Subjects

A total of 798 individuals with leprosy (mean [\pm SD] age (at sample collection), 56.2 ± 14.4 years; mean [\pm SD] age-at-onset [AAO], 26.5 ± 12.5 years; females, 31.5%) and 990 leprosy-free controls (mean [\pm SD] age (at sample collection), 38.1 ± 14.0 years; females, 44.3%) from Wenshan, Yunnan Province of Southwest China were analyzed by targeted sequencing, as reported in our previous studies.^{7,16} Leprosy patients were diagnosed based on clinical and histopathological features, as well as bacteriological index if available, following the strategy in our previous study.¹⁷ Leprosy cases were grouped into multibacillary (MB) leprosy and paucibacillary (PB) leprosy based on the number of skin lesions.¹⁸ The control subjects were included if they: (a) were from the same ethnic population as the patients, (b) lived in the same geographic region as the patients, (c) have no infection history of leprosy or tuberculosis, (d) were older than the average AAO of leprosy in the patient group. The patient samples were collected with a retrospective strategy, whereas the controls were enrolled with a physical examination screening strategy, and all these blood samples were described in our previous studies.^{7,16} Each participant signed a written informed consent in line with the tenets of the Declaration of Helsinki prior to the study. The institutional review board of the Kunming Institute of Zoology approved this study. The statistical power and sample size was estimated by using the Quanto software (version 1.2.4)¹⁹ based on the following parameters: MAF = 0.05; disease prevalence = 0.0001; significance 0.05, 2-sides. To capture an odds ratio (OR) of 1.5 with a statistical power of 80% under an additive model, 843 pairs of case and control samples were needed. Therefore, the sample size of the current study is sufficient to achieve a statistical power of 80%.

2.2 | Gene selection, targeted sequencing, and data processing

Interleukins are a large group of immunomodulatory cytokines that modulate growth, differentiation, and signaling activation during an

immune response. These cytokines were systematically grouped based on genomic architecture and characteristic protein structural features as described by Brocker and coauthors.²⁰ We took all interleukin family genes summarized by Brocker et al.²⁰ for re-sequencing. Targeted region of 58 *ILs* were captured and sequenced following the same method as described in our previous study.¹⁶ In brief, coding regions of each targeted gene were captured by using the NimbleGen Choice Enrichment Kit (Roche NimbleGen, Inc., Madison, WI) following the manufacturer's protocols (NimbleGen SeqCap EZ Library SR User's Guide, version 5.1). Captured and amplified DNA libraries were sequenced by using the Illumina HiSeq 4000/X ten Genome Analyzer (150-bp paired-end reads). Sequencing reads were filtered and trimmed with Trimmomatic.²¹ The resulting clean reads were aligned to the human reference genome GRCh37/hg19 by Burrows-Wheeler Aligner.²² The Genome Analysis Toolkit (the GATK Best Practices)²³ was used for the base quality score recalibration, indel realignment, duplicate removal, and variant calling. Variants deviated from the Hardy-Weinberg equilibrium (*p*-value <0.001) were excluded. Principle component analysis was performed to assess potential population stratification. All the variants were annotated with ANNOVAR.²⁴

2.3 | mRNA expression profiling

We retrieved two leprosy-relevant mRNA expression datasets with relatively large sample size from the Gene Expression Omnibus (GEO, <https://www.ncbi.nlm.nih.gov/geo/browse/?view=series>) to investigate transcriptomic alterations of *ILs* during *M. leprae* infection. Dataset GSE100853 contains mRNA expression data of whole blood cells from 51 unrelated individuals with borderline leprosy, with or without stimulation with *M. leprae* sonicate.²⁵ Dataset GSE74481 contains mRNA expression data of leprotic skin lesions, including 24 individuals with multibacillary (MB) leprosy (10 borderline [BB], 10 borderline lepromatous [BL] and 4 lepromatous leprosy [LL]), 20 individuals with paucibacillary (PB) leprosy (10 tuberculoid leprosy [TT] and 10 borderline tuberculoid [BT]), 14 individuals with type 1 reaction, and 9 individuals with type 2 reaction, and normal skin biopsies from 9 healthy controls.²⁶ Differential expression analysis was conducted using the GEO2R tool with limma R package. *p*-value $<8.6 \times 10^{-4}$ was set as the significant threshold of gene expression alteration considering multiple testing of 58 genes.

2.4 | Network analysis

To explore the involvement of interleukins in leprosy at a broader context, we constructed the interaction network of all interleukins together with 52 known leprosy GWAS genes using the online tool STRING (<https://string-db.org/>). The STRING network view summarizes the network of predicted associations among a particular group of proteins. Interactions or associations between two proteins were defined if there were protein-protein interaction from experiments or

TABLE 1 Variants of the interleukin family genes showing a suggestively significant association with leprosy

Gene	SNP	Chr	Position	Ref	Alt	Residue change	Control			Leprosy per se			MB vs. control			PB vs. control		
							Allele frequency	P_{adj}	OR_{adj}	Allele frequency			P_{adj}	OR_{adj}	$p\text{-value}$	Allele frequency	OR_{adj}	$p\text{-value}$
										Allele	frequency	Allele	frequency	Allele	frequency	Allele	frequency	
<i>IL27</i>	rs17855750	16	28 515 228	A	C	p.S59A	0.101	0.165	4.02E-08	1.748	0.170	2.33E-07	1.838	0.161	6.93E-05	1.715		
<i>IL1RN</i>	rs45507693	2	113 890 284	G	A	p.A106T	0.008	0.028	1.45E-05	3.629	0.031	1.01E-05	3.924	0.021	1.39E-02	2.620		
<i>IL18R1</i>	rs1420098	2	102 984 279	T	C	intron	0.434	0.509	1.68E-05	1.338	0.488	7.77E-03	1.240	0.537	9.24E-06	1.510		
<i>IL19</i>	rs2243188	1	207 014 472	A	C	intron	0.391	0.459	2.43E-05	1.335	0.469	9.04E-05	1.376	0.445	1.69E-02	1.251		
<i>IL1R1</i>	rs3917322	2	102 793 246	A	G	utr-3	0.067	0.107	3.45E-05	1.665	0.106	3.48E-04	1.663	0.111	5.37E-04	1.747		
<i>IL2RB</i>	rs3218297	22	37 532 441	G	A	intron	0.177	0.129	4.81E-05	0.677	0.132	1.94E-03	0.703	0.118	3.74E-04	0.619		
<i>IL1R1</i>	rs112972404	2	102 792 785	T	G	intron	0.067	0.105	6.38E-05	1.640	0.106	3.48E-04	1.663	0.108	1.30E-03	1.690		
<i>IL6R</i>	rs2229238	1	154 437 896	T	C	utr-3	0.824	0.771	8.20E-05	0.712	0.768	4.49E-04	0.705	0.783	2.46E-02	0.769		
<i>IL16</i>	rs8031107	15	81 582 868	G	A	p.Q469Q	0.563	0.629	8.68E-05	1.319	0.624	2.27E-03	1.287	0.633	2.10E-03	1.341		
<i>IL17RB</i>	rs2232350	3	53 899 178	T	C	p.I451T	0.153	0.111	1.14E-04	0.669	0.104	3.70E-04	0.645	0.116	2.19E-02	0.727		
<i>IL17RA</i>	rs2241046	22	17 586 471	C	T	intron	0.813	0.860	1.47E-04	1.420	0.864	6.42E-04	1.464	0.859	9.43E-03	1.399		
<i>IL16</i>	rs61752774	15	81 584 925	C	T	p.H483H	0.208	0.263	1.69E-04	1.357	0.244	2.90E-02	1.235	0.293	1.83E-05	1.579		
<i>IL1RN</i>	rs20034326	2	113 890 216	C	T	intron	0.001	0.013	4.06E-04	13.891	0.014	1.41E-05	14.430	0.008	1.04E-02	8.015		
<i>IL10RA</i>	rs2256111	11	117 864 047	A	G	p.A153A	0.638	0.585	8.16E-04	0.797	0.590	1.30E-02	0.814	0.579	7.88E-03	0.778		

Abbreviations: Alt, alternate allele; Chr, chromosome; MB, multibacillary leprosy; OR, odds ratio; OR_{adj} , gender adjusted odds ratio; PB, paucibacillary leprosy; P_{adj} , gender adjusted p-value by logistic regression; Ref, reference allele. p-values were calculated by using the Chi-square test, or by using the Fisher's exact test when the number of samples was smaller than five, with the default setting in Plink/seq.

TABLE 2 Gene-based burden test of interleukin genes

Gene	Locus	Position	NVAR	p-value	DESC
IL17B	ENST00000261796	chr5:148753979..148753979	1	0.045	4/0
IL22	ENST00000538666	chr12:68646548..68646548	1	0.124	5/1
IL12B	ENST00000231228	chr5:158747334..158750329	5	0.188	33/33
IL9	ENST00000274520	chr5:135229769..135229820	2	0.250	16/16
IL18R1	ENST00000410040	chr2:103010959..103013278	3	0.275	41/46
IL24	ENST00000367093	chr1:207072793..207076321	3	0.303	46/51
IL36RN	ENST00000393200	chr2:113818451..113820154	5	0.345	15/15
IL12A	ENST00000466512	chr3:159711386..159713222	2	0.345	3/2
IL1B	ENST00000263341	chr2:113588904..113593779	2	0.471	2/1
IL23R	ENST00000347310	chr1:67635217..67705933	6	0.471	23/27
IL34	ENST00000288098	chr16:70680854..70693597	3	0.538	3/2
IL4R	ENST00000543915	chr16:27351582..27374993	11	0.600	9/11
IL23A	ENST00000228534	chr12:56732938..56733210	2	0.667	1/1
IL13	ENST00000304506	chr5:131993921..131995114	3	0.833	9/9
IL1R1	ENST00000409589	chr2:102793049..102793049	1	0.833	1/0
IL10RA	ENST00000227752	chr11:117859114..117870312	10	1	6/16
IL26	ENST00000229134	chr12:68595823..68619022	2	1	4/13
IL4	ENST00000231449	chr5:132015497..132015497	1	1	0/1
IL1RL1	ENST00000233954	chr2:102955318..102968184	15	1	18/28
IL5RA	ENST00000256452	chr3:3116538..3144457	6	1	1/6
IL2RA	ENST00000256876	chr10:6061452..6067947	4	1	2/3
IL12RB2	ENST00000262345	chr1:67787516..67861521	10	1	16/26
IL1A	ENST00000263339	chr2:113535591..113539246	2	1	0/5
IL7	ENST00000263851	chr8:79650746..79652295	3	1	2/3
IL18RAP	ENST00000264260	chr2:103040315..103067433	3	1	1/2
IL22RA1	ENST00000270800	chr1:24447438..24465170	6	1	4/8
IL17RB	ENST00000288167	chr3:53883691..53889368	5	1	1/4
IL3	ENST00000296870	chr5:131396684..131396685	2	1	0/3
IL8	ENST00000307407	chr4:74607303..74607303	1	1	0/1
IL11RA	ENST00000318041	chr9:34657047..34659838	9	1	38/71
IL1R2	ENST00000332549	chr2:102626142..102644721	7	1	4/22
IL17F	ENST00000336123	chr6:52101763..52101922	3	1	1/5
IL1F10	ENST00000337569	chr2:113832300..113832759	4	1	1/5
IL17A	ENST00000340057	chr6:52053896..52053906	2	1	0/4
IL19	ENST00000340758	chr1:207010009..207013276	2	1	0/2
IL16	ENST00000355368	chr15:81517772..81598884	24	1	35/44
IL27	ENST00000356897	chr16:28513305..28513305	1	1	1/2
IL6R	ENST00000368485	chr1:154401686..154437693	9	1	2/13
IL25	ENST00000397242	chr14:23844853..23845075	3	1	1/2
IL15RA	ENST00000397250	chr10:5995119..6019437	7	1	4/13
IL6	ENST00000401630	chr7:22767081..22771139	3	1	0/3
IL10	ENST00000423557	chr1:206944259..206945663	2	1	0/3
IL17RA	ENST00000425985	chr22:17579724..17590498	9	1	5/26
IL12RB1	ENST00000430026	chr19:18188459..18193038	2	1	0/3
IL1RL2	ENST00000441515	chr2:102804330..102851669	13	1	6/10
IL1RAP	ENST00000443369	chr3:190321983..190366198	5	1	2/7

(Continues)

TABLE 2 (Continued)

Gene	Locus	Position	NVAR	p-value	DESC
IL2RB	ENST00000447922	chr22:37524455..37524683	4	1	3/8
IL32	ENST00000526464	chr16:3117986..3117986	1	1	0/2
IL18	ENST00000528832	chr11:112020804..112025712	2	1	3/4
IL10RB	ENST00000539894	chr21:34640719..34652209	5	1	16/22

Abbreviations: DESC, number of cases/controls with the minor allele; NVAR, number of rare coding variants; p-value, the burden test.

databases, or if they are co-expressed, or predicted to be gene-fusion, as shown in the webserver. The interaction modules were clustered by the kmeans clustering method.

2.5 | Statistical analysis

Allele frequencies of all ILs variants in individuals with leprosy were compared to those of the controls for the single-site association analysis. The adjusted p-value by logistic regression was used for initial comparison, with gender as the covariate. Considering the relatively small sample size for MB and PB subtype, the p-values were calculated by using the Chi-square test rather than logistic regression, as the latter is more stringent and requires a larger sample size. The Fisher's exact test was used when the number of minor alleles was smaller than five. A p-value less than 3.38×10^{-5} (Bonferroni corrected: 0.05/1479) was set as the experiment-wide significance for a total of 1479 SNPs were used for single-site association. As the power to detect association with a single variant is limited, pooling variants by each gene into a composite test provides an alternative strategy for identifying susceptibility genes.^{27,28} We then performed burden test at the gene level. All the damaging coding variants (predicted to be deleterious by at least two algorithms in ANNOVAR²⁴) with minor allele frequencies (MAF) < 1% in the 1000 Genomes Project dataset²⁹ were used for the gene-based burden test (—burden). Single-site association and gene-based test were conducted by using PLINK/seq (<https://atgu.mgh.harvard.edu/plinkseq>).

3 | RESULTS

3.1 | Genetic association of coding variants in ILs with leprosy risk

After quality control, a total of 1479 SNPs within the 58 ILs were obtained in 798 cases and 990 controls, which resulted in a threshold of experiment-wide significance of $p < 3.38 \times 10^{-5}$ (Bonferroni corrected: 0.05/1479). Of the 1479 variants (Table S1), there were 578 missense variants, 468 intronic variants, 291 synonymous-coding variants, 29 variants in splice sites, 50 variants in 5'-UTR, 46 variants in 3'-UTR, 16 nonsense variants, and one readthrough variant. Logistic regression analysis adjusting for gender showed that four variants were significantly associated with leprosy (Table 1). Among them,

low-frequency variants rs17855750 of *IL27* (p. S59A, $p = 4.02 \times 10^{-8}$, OR = 1.748) showed a genome-wide significance and rs45507693 of *IL1RN* (p. A106T, $p = 1.45 \times 10^{-5}$, OR = 3.629) had an experiment-wide significant association with leprosy risk (Table 1). Note that the reported coding variant (rs181206, p.L119P) in *IL27* by exome chip,¹⁴ which is in weak linkage disequilibrium (LD) with rs17855750 ($R^2 < 0.1$), showed a marginally significant association with leprosy in our cohort ($p = 2.55 \times 10^{-3}$, OR = 0.639). This LD and association pattern suggested that rs17855750 (p.S59A) might be an independent signal within *IL27*. For the reported *IL23R* hit rs76418789 (p.G149R), there was no association observed in our sample ($p = 0.503$, OR = 1.121), whereas another common missense variant rs1884444 (p.Q3H, $p = 2.57 \times 10^{-3}$, OR = 1.240) showed suggestive association. Missense variant rs2232350 of *IL17RB* (p.I451T) with a low frequency showed a suggestive significance ($p = 1.14 \times 10^{-4}$, OR = 0.669). Several coding variants in *IL1RL1* and *IL1R1* also showed suggestive associations with leprosy (Table S1).

When we divided the patients into multibacillary (MB) and paucibacillary (PB) leprosy, the associations were still robust albeit the sample size was relatively small. This finding suggested that the associations were not driven by specific leprosy subtypes (Table S1).

We also performed rare-coding-variants-based burden test, but found no ILs were significantly enriched for rare damaging coding variants in leprosy (Table 2), indicating the potential existence of single causal variants.

3.2 | Impact of regulatory variants on gene expression level

There were several noncoding variants, especially in the untranslated regions (UTR), were associated with leprosy. These variants might affect leprosy risk through regulating gene expression. We analyzed the expression quantitative trait loci (eQTL) effect of these potentially regulatory variants ($p\text{-value} < 1.0 \times 10^{-4}$) using the GTEx data (<https://gtexportal.org/home/>).³⁰ Genotypes of three leprosy-associated variants rs17855750 (*IL27* p.S59A), rs3917322 (located in 3'-UTR of *IL1R1*) and rs112972404 (located in the *IL1R1* intronic region), were associated with nearby genes (Table S2). Other ILs variants, such as, rs2243188 (*IL19* intronic region), rs2229238 (3'-UTR of *IL6R*), and rs8031107 (*IL16* p.Q469Q), were associated with the expression of the respective gene. Importantly, the intronic variant rs1420098 of *IL18R1* affected the expression of *IL18R1*, *IL18RAP*, and *IL1RL1* that

TABLE 3 Expression profiling of the interleukin genes in leprosy

Gene	GSE100853				GSE74481				Ctrl vs MB		Ctrl vs R1		Ctrl vs R2	
	Ctrl vs 5 ug/ml		Ctrl vs 20 ug/ml		Ctrl vs PB				P_Value	logFC	P_Value	logFC	P_Value	logFC
	P_Value	logFC	P_Value	logFC	P_Value	logFC	P_Value	logFC	P_Value	logFC	P_Value	logFC	P_Value	logFC
IL10	9.9E-01	-0.002	6.3E-07	0.433	—	—	—	—	—	—	—	—	—	—
IL10RA	2.1E-05	0.296	7.5E-13	0.401	3.2E-13	2.492	9.4E-16	2.686	1.2E-19	3.121	8.7E-12	2.826	—	—
IL10RB	2.2E-02	0.365	5.9E-02	0.167	1.6E-02	0.215	1.4E-03	0.508	1.1E-08	0.643	1.7E-07	0.829	—	—
IL11RA	3.7E-05	-0.167	3.3E-13	-0.180	1.5E-03	-0.445	8.2E-04	-0.538	3.7E-02	-0.345	3.3E-07	-1.221	—	—
IL12A	1.8E-02	-0.054	8.9E-02	0.045	—	—	—	—	—	—	—	—	—	—
IL12B	7.6E-01	-0.006	3.7E-12	0.477	—	—	—	—	—	—	—	—	—	—
IL12RB1	9.4E-01	-0.002	3.6E-01	0.020	—	—	—	—	—	—	—	—	—	—
IL12RB2	7.7E-01	0.011	4.7E-01	-0.016	—	—	—	—	—	—	—	—	—	—
IL13	3.2E-01	0.023	4.1E-01	0.011	—	—	—	—	—	—	—	—	—	—
IL13RA1	6.2E-01	0.085	1.9E-18	-1.137	4.7E-05	0.438	5.0E-05	0.562	1.4E-10	0.862	3.0E-08	1.043	—	—
IL13RA2	8.5E-01	-0.006	1.1E-01	0.032	—	—	—	—	—	—	—	—	—	—
IL15	3.3E-06	0.358	5.4E-14	0.468	4.5E-14	2.372	3.0E-16	2.448	1.0E-16	2.988	5.4E-11	2.396	—	—
IL15RA	3.2E-05	0.206	1.7E-15	0.829	5.7E-05	0.645	5.4E-04	0.627	1.8E-09	1.273	1.1E-07	1.417	—	—
IL16	1.7E-01	-0.164	1.8E-07	-0.393	4.3E-09	1.357	6.7E-10	1.428	2.4E-14	1.751	1.1E-04	0.855	—	—
IL17A	9.0E-01	-0.004	8.1E-01	0.004	—	—	—	—	—	—	—	—	—	—
IL17B	7.7E-01	-0.006	6.8E-01	-0.005	—	—	—	—	—	—	—	—	—	—
IL17F	3.5E-01	-0.020	8.5E-01	-0.003	—	—	—	—	—	—	—	—	—	—
IL17RA	2.1E-01	0.140	8.7E-11	-0.428	4.4E-06	0.830	1.1E-03	0.656	2.2E-11	1.387	2.7E-08	1.109	—	—
IL17RB	9.4E-01	-0.002	3.9E-03	0.065	—	—	—	—	—	—	—	—	—	—
IL18	9.4E-01	-0.006	6.4E-03	-0.165	1.5E-04	-0.647	5.2E-05	-0.566	1.5E-06	-0.896	1.1E-03	-0.720	—	—
IL18R1	1.8E-03	-0.375	4.3E-13	-0.562	—	—	—	—	—	—	—	—	—	—
IL18RAP	4.2E-01	-0.151	2.4E-03	-0.367	9.6E-06	1.897	7.9E-04	1.117	1.6E-09	2.435	7.2E-07	2.166	—	—
IL19	9.9E-02	0.036	1.1E-06	0.103	—	—	—	—	—	—	—	—	—	—
IL1A	1.2E-24	1.476	9.3E-65	0.103	—	—	—	—	—	—	—	—	—	—
IL1B	1.3E-19	3.300	1.3E-60	0.103	6.1E-03	0.842	1.0E-01	0.497	5.6E-06	1.814	8.3E-06	3.989	—	—
IL1F10	6.1E-01	-0.015	3.7E-01	-0.018	—	—	—	—	—	—	—	—	—	—
IL1R1	4.3E-01	-0.026	3.8E-05	0.121	—	—	—	—	—	—	—	—	—	—
IL1R2	5.0E-01	-0.080	2.6E-09	-0.437	—	—	—	—	—	—	—	—	—	—
IL1RAP	8.8E-03	0.227	1.3E-04	0.210	1.0E-07	-0.933	7.4E-09	-1.232	2.2E-12	-1.446	1.6E-02	-0.578	—	—
IL1RAPL2	4.2E-01	0.024	8.0E-01	0.005	—	—	—	—	—	—	—	—	—	—
IL1RL1	9.4E-01	0.006	9.3E-02	0.092	—	—	—	—	—	—	—	—	—	—
IL1RL2	4.9E-01	0.024	3.6E-01	0.021	—	—	—	—	—	—	—	—	—	—
IL1RN	1.6E-01	0.036	6.4E-03	0.042	1.5E-05	-1.088	8.5E-08	-1.368	2.9E-10	-1.675	4.1E-01	-0.282	—	—
IL2	3.2E-01	0.029	3.2E-01	0.018	—	—	—	—	—	—	—	—	—	—
IL21	2.2E-01	-0.032	9.0E-02	0.031	—	—	—	—	—	—	—	—	—	—
IL22	5.1E-01	0.021	3.0E-03	0.068	—	—	—	—	—	—	—	—	—	—
IL22RA1	8.0E-01	-0.005	4.5E-01	-0.010	1.1E-04	-0.946	4.2E-06	-1.353	1.7E-10	-1.760	3.5E-05	-1.578	—	—
IL23A	1.1E-11	0.811	1.4E-54	4.010	2.0E-11	2.614	1.8E-10	1.561	6.0E-12	2.440	2.2E-08	2.241	—	—
IL23R	1.1E-01	-0.044	4.3E-04	-0.067	—	—	—	—	—	—	—	—	—	—
IL24	1.1E-02	0.085	1.2E-11	0.270	—	—	—	—	—	—	—	—	—	—
IL25	4.1E-03	-0.140	6.3E-03	-0.095	—	—	—	—	—	—	—	—	—	—
IL26	4.1E-01	-0.018	9.4E-02	0.026	—	—	—	—	—	—	—	—	—	—
IL27	2.1E-02	0.097	8.4E-08	0.593	—	—	—	—	—	—	—	—	—	—
IL2RA	2.8E-02	0.115	9.9E-16	0.507	—	—	—	—	—	—	—	—	—	—

(Continues)

TABLE 3 (Continued)

Gene	GSE100853 Ctrl vs 5 ug/ml		GSE74481 Ctrl vs PB		Ctrl vs MB		Ctrl vs R1		Ctrl vs R2	
	P_Value	logFC	P_Value	logFC	P_Value	logFC	P_Value	logFC	P_Value	logFC
<i>IL2RB</i>	4.7E-03	-0.452	5.1E-10	-0.670	4.0E-06	1.660	2.6E-07	1.776	3.8E-13	2.330
<i>IL3</i>	4.3E-01	-0.021	2.6E-01	-0.019	—	—	—	—	—	—
<i>IL32</i>	1.4E-01	0.126	3.1E-06	0.305	4.1E-15	2.576	4.3E-15	2.574	3.9E-18	3.084
<i>IL34</i>	1.7E-01	0.034	9.2E-01	-0.002	—	—	—	—	—	—
<i>IL36RN</i>	—	—	—	—	—	—	—	—	—	—
<i>IL4</i>	1.5E-01	0.063	5.6E-02	0.064	—	—	—	—	—	—
<i>IL4R</i>	8.7E-01	0.003	6.3E-01	0.008	4.8E-07	0.851	3.8E-05	0.652	1.4E-11	1.233
<i>IL5</i>	8.4E-01	-0.004	5.5E-01	0.008	—	—	—	—	—	—
<i>IL5RA</i>	6.2E-01	0.049	9.7E-03	-0.147	—	—	—	—	—	—
<i>IL6</i>	2.9E-16	0.765	3.5E-49	4.442	1.7E-05	1.837	9.6E-07	1.687	3.0E-08	2.518
<i>IL6R</i>	4.6E-02	0.156	3.6E-02	0.098	3.6E-06	1.155	7.9E-07	1.176	1.8E-10	1.581
<i>IL7</i>	4.4E-01	-0.019	8.7E-01	-0.003	1.4E-01	-0.230	1.6E-02	-0.342	2.3E-01	-0.179
<i>IL8</i>	1.2E-07	1.134	2.5E-32	1.819	—	—	—	—	—	—
<i>IL9</i>	3.9E-01	0.026	2.5E-01	0.022	—	—	—	—	—	—

Abbreviations: Ctrl, control; MB, multibacillary leprosy; PB, paucibacillary leprosy; vs., versus; R1, type 1 reaction; R2, type 2 reaction; logFC, log2 transform of fold change compared with that of controls. GSE100853 contains mRNA expression data of whole blood cells from 51 individuals with borderline leprosy, with or without stimulation of *M. leprae* sonicate.²⁵ GSE74481 contains mRNA expression data of leprotic skin lesions, including 24 individuals with MB, 20 individuals with PB, 14 individuals with type 1 reaction, and 9 individuals with type 2 reaction, and normal skin biopsies from 9 healthy controls.²⁶ p-values $<2.5 \times 10^{-4}$ were considered as significant (multiple testing of 198 independent tests) and marked in bold.

were located in the same gene cluster (Table S2). We speculated that these three *IL* genes might be co-regulated and had a synergistic role.

3.3 | Expression alterations of *IL* genes in skin tissues of leprosy patients or *M. leprae*-treated cells

As we identified several regulatory *ILs* variants affecting gene expression, we then tested whether *ILs* mRNA expression were dysregulated in skin tissues of leprosy patients (GSE74481)²⁶ and *M. leprae*-treated cells (GSE100853).²⁵ The expression profiles in skin lesions of leprosy patients are important, as skin lesion is the most frequent histopathological feature. There were 17 dysregulated *ILs* (p -value $<8.6 \times 10^{-4}$) in skin lesions of both MB and PB patients, the direction of alteration was similar between patients with type 1 and type 2 reactions (Table 3). Consistent with the expression pattern in skin lesions, nine *ILs* (*IL1A*, *IL1B*, *IL6*, *IL8*, *IL10RA*, *IL11RA*, *IL15*, *IL15RA*, and *IL23A*, p -value $<8.6 \times 10^{-4}$) were significantly altered in whole blood cells stimulated with *M. leprae* sonicate²⁵ (Table 3). For instance, both pro-inflammatory *IL1A*, *IL1B*, and *IL6* were upregulated under *M. leprae* stimulation or in skin lesions. The mRNA level of *IL27*, which showed a genome-wide association with leprosy risk in genetic analysis, was increased in response to *M. leprae* stimulation (Table 3). Expression of the *IL1RN* gene was significantly decreased in skin lesions of leprosy patients, but had a marginally significant increase in *M. leprae*-treated cells, suggesting potential tissue or cell-specific effect.

3.4 | Function clusters of interleukins in leprosy

In the functional network composed of the 58 interleukins and 52 leprosy GWAS genes, we observed 413 network edges among the 103 available nodes (genes/proteins), which was significantly (enrichment p -value $<1.0 \times 10^{-16}$) higher than the expected number of edges assuming the nodes were to be selected at random. In addition, there were six clusters by these nodes, of which interleukins make up four functional clusters (Figure 1). Mutations and dysregulations occurred in all four clusters, indicating the full involvement of all interleukin types in leprosy. Interaction between interleukins and other leprosy GWAS genes were only observed for HLA cluster and NOD2-PARK2 cluster, indicating a relatively independent role of interleukins in the pathogenesis of leprosy.

4 | DISCUSSION

Interleukins are highly involved in the pathogenesis of leprosy.^{11,12} Associations between *IL* variants and leprosy had been widely observed in Han Chinese populations.^{11,12} To confirm the associations and fine-map the putatively functional variants, we screened all variants in the coding region of 58 *ILs*²⁰ in subjects with and without leprosy by using next-generation sequencing technology. We identified a genome-wide significant *IL27* coding variant rs17855750 (p.S59A) conferring risk to leprosy. The allele frequency of rs17855750

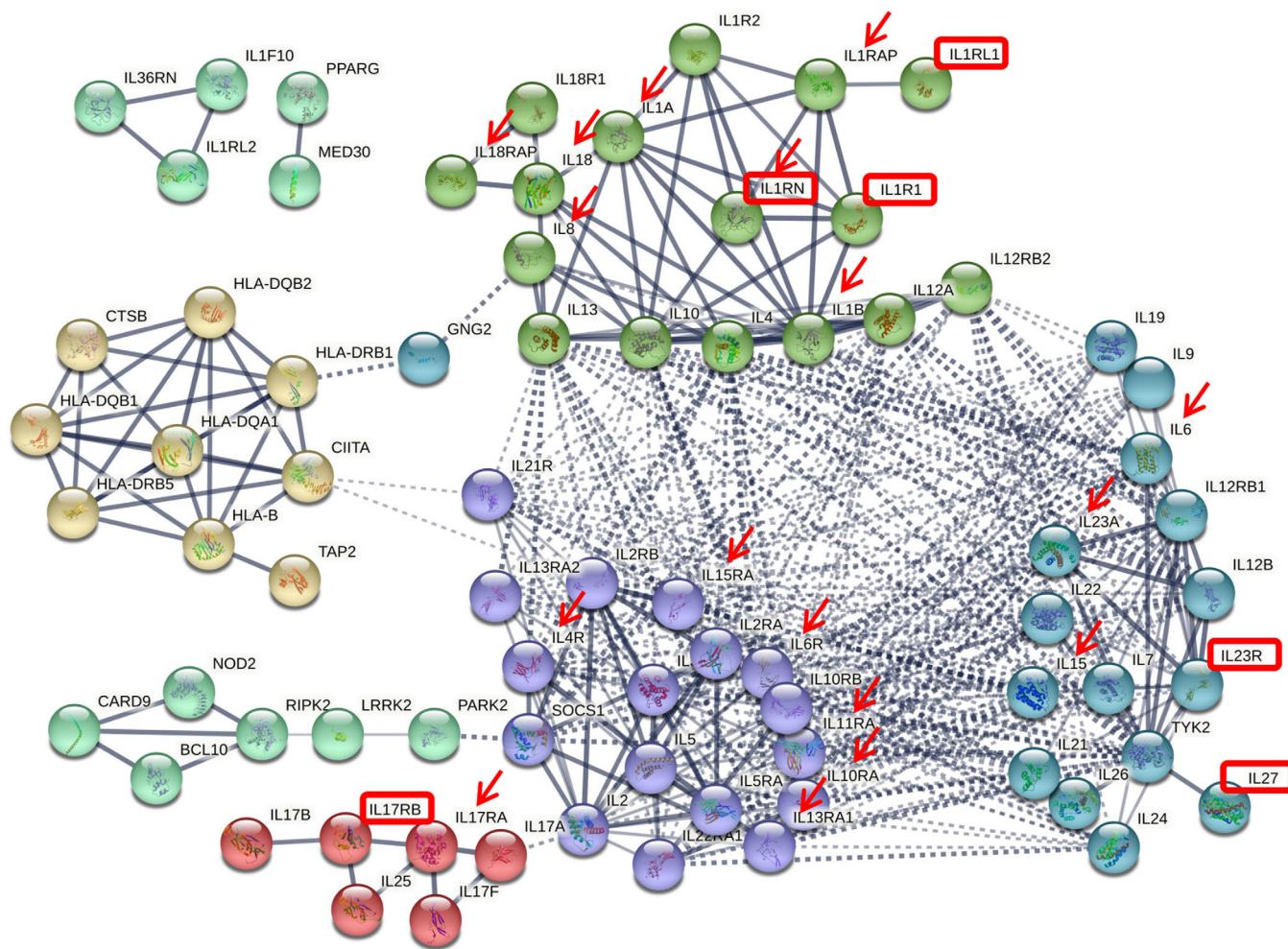


FIGURE 1 Interaction network of interleukins and leprosy GWAS genes. Interaction network was constructed using online tool STRING (<https://string-db.org/>). Interactions were defined using interaction resources from experiments, databases, co-expression, and gene fusion. The network nodes are proteins. The edges represent the predicted functional associations. The edges are drawn according to the view settings (here the confidence mode): the thickness of the line indicate the degree of confidence prediction of the interaction. The interaction modules were clustered by the kmeans clustering method. Dashed lines indicated potential interaction between clusters. Interleukins associated with leprosy risk were marked by red frame, while dysregulated interleukins in leprosy related conditions were indicated by red arrow [Colour figure can be viewed at wileyonlinelibrary.com]

is similar among different populations based on the 1000 genome dataset,³¹ suggesting a potentially general relevance for other ethnicities. The previously described *IL27* variant rs181206 (p.L119P) showed a protective effect on leprosy in our cohort (OR = 0.639), with the same effect direction as that of the reported study (OR = 0.89) based on the exome chip,¹⁴ indicating the robustness of the association. The rs181206 was in low LD with the genome-wide significant hit rs17855750 (OR = 1.748) in our cohort, this is the reason why both SNPs in the *IL27* gene showed the opposite effect direction, and independent signals with different effect on leprosy might exist within the same gene. Note that a recent association study focusing on tuberculosis in Chinese population showed that the rs17855750, but not rs181206, conferred a protective effect on tuberculosis susceptibility.³² This observation supported a potential function of rs17855750 and might partially explain the low frequent co-infection of leprosy and tuberculosis in clinical practice.^{33–36}

We also found an experiment-wide ($p < 3.38 \times 10^{-3}$) significant hit rs45507693 (p.A106T) of *IL1RN* and a marginally significant ($p = 3.45 \times 10^{-3}$) variant rs3917322 in 3'-UTR of *IL1R1* that increase leprosy risk, indicating a potentially active role of the IL1-mediated signaling pathway in leprosy. This finding has not been highlighted in previous studies.^{11,13,14} Note that the minor allele frequencies of both *IL1RN* rs45507693 and *IL1R1* rs3917322 are strikingly higher in Asian than in other populations, suggesting that the risk effect of variants in the IL1 signaling pathway on leprosy might be population-specific. The identification of these putatively functional/pathogenic variants in *ILs* expands the list of leprosy-related risk variants that might be missed by array-based approaches.

The *IL27* protein is one of the subunits of a heterodimeric cytokine complex that induces rapid expansion of naive CD4⁺ T cells and triggers interferon gamma production, thus acts a protective role in immune responses.³⁷ We observed an upregulation of *IL27* in

response to *M. leprae* treatment, indicating a compensatory effect during infection. Though the risk allele rs17855750 (p.S59A) of *IL27* does not refer to lower *IL27* level, it might increase leprosy risk through impairing the activation capacity in patients carrying this mutation. The other significant hit *IL1RN* encodes the interleukin-1 receptor antagonist (IL-1RA). It binds to IL-1 receptors in competition with IL-1, inhibiting the increase of pro-inflammatory cytokines.³⁸ Its decrease in skin lesion of patients might be a clue for active inflammatory responses in leprosy. Similar with the leprosy risk associated variant in *IL27*, though we observed no effect of *IL1RN* rs45507693 (p.A106T) on its expression, the risk allele might affect leprosy risk through impairing the anti-inflammatory activity.

Besides the identification of *ILs* coding variants associated with leprosy, we also identified several leprosy-associated regulatory variants affecting the mRNA expression level of *ILs*, suggesting regulation at multiple levels. Moreover, these *ILs* might work beyond the genomic mutations or expression alterations. For instance, the interleukins and top leprosy risk genes have significantly more interactions among themselves than what would be expected for a random set of proteins of similar size. Such an enrichment indicates that the interleukins, as well as leprosy GWAS genes, are at least partially biologically connected as a group. Note that the interleukins make up four functional clusters in the network analysis, the molecular mechanism by which interleukins contribute to leprosy might be complicated.

One major limitation of this study is the lack of replication in an independent population. It is ideal to get a larger sample size to discern a robust association of rare variant(s) with leprosy. An integrative analysis of different types of transcriptomic data with genetic variants, regulatory network, as well as functional characterization might provide more insights into the exact role of *ILs* in leprosy pathobiology.

In summary, we confirmed the association of *ILs* with leprosy and identified the potentially causal coding variants. Independent validations are needed to confirm our results. Functional assays are warranted to investigate the exact role of *ILs* and their mutations in the pathogenesis of leprosy.

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CONFLICT OF INTEREST

The authors declare no potential conflict of interest.

AUTHOR CONTRIBUTION

Deng-Feng Zhang and Yong-Gang Yao designed the study. Dong Wang, Hui-Long Li, Deng-Feng Zhang, Quanzhen Zheng, Rui Bi, Min Xu, and Yu-Ye Li performed experiments, analyzed and interpreted

data. Deng-Feng Zhang, Hui-Long Li, and Yong-Gang Yao wrote the manuscript. All authors revised the manuscript and approved the publication.

PEER REVIEW

The peer review history for this article is available at <https://publons.com/publon/10.1111/cge.13945>.

DATA AVAILABILITY STATEMENT

Data availability statement: All summary data were provided in the results and supplemental files. The raw sequencing reads and processed data generated and/or analyzed during the current study are available from the corresponding author on reasonable request. Gene expression data from GSE100853 and GSE74481 were available at <https://www.ncbi.nlm.nih.gov/geo/browse/?view=series>.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

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Table S1. Variants of *ILs* identified by targeted sequencing in Chinese with and without leprosy from Yunnan Province of Southwest China

Gene	SNP ID	Chr:Position	Ref	Alt	Residue change	Allele counts in Ctrl	Allele counts in patients	Lep vs Ctrl_P-value ^s	Lep vs Ctrl_aj-value	Lep vs Ctrl_OR	Lep vs Ctrl_a	Lep vs Ctrl_OR _{adj}	Allele counts in MB patients	Allele counts in PB patients	MB vs Ctrl_P-value	MB vs Ctrl_OR	PB vs Ctrl_P-value	PB vs Ctrl_OR
<i>IL27</i>	rs17855750	16:28515228	A	C	p.S59A	199/1980	263/1596	1.7E-08	1.77	4.0E-08	1.75	154/904	100/622	2.3E-07	1.84	6.9E-05	1.71	
<i>IL1RN</i>	rs45507693	2:113890284	G	A	p.A106T	16/1980	45/1596	5.6E-06	3.56	1.5E-05	3.63	28/904	13/622	1.0E-05	3.92	1.4E-02	2.62	
<i>IL18R1</i>	rs1420098	2:102984279	T	C	intron	860/1980	812/1596	1.0E-05	1.35	1.7E-05	1.34	441/904	334/622	7.8E-03	1.24	9.2E-06	1.51	
<i>IL19</i>	rs2243188	1:207014472	A	C	intron	774/1980	732/1594	4.3E-05	1.32	2.4E-05	1.34	423/902	277/622	9.0E-05	1.38	1.7E-02	1.25	
<i>IL1R1</i>	rs3917322	2:102793246	A	G	utr-3	132/1980	170/1596	2.8E-05	1.67	3.5E-05	1.67	96/904	69/622	3.5E-04	1.66	5.4E-04	1.75	
<i>IL2RB</i>	rs3218297	22:37532441	G	A	intron	351/1978	205/1594	6.4E-05	0.68	4.8E-05	0.68	119/904	73/620	1.9E-03	0.70	3.7E-04	0.62	
<i>IL1R1</i>	rs112972404	2:102792785	T	G	intron	132/1980	168/1596	4.5E-05	1.65	6.4E-05	1.64	96/904	67/622	3.5E-04	1.66	1.3E-03	1.69	
<i>IL6R</i>	rs2229238	1:154437896	T	C	utr-3	1632/1980	1231/1596	8.9E-05	0.72	8.2E-05	0.71	694/904	487/622	4.5E-04	0.70	2.5E-02	0.77	
<i>IL16</i>	rs8031107	15:81582868	G	A	p.Q469Q	1115/1980	1004/1596	7.1E-05	1.32	8.7E-05	1.32	564/904	394/622	2.3E-03	1.29	2.1E-03	1.34	
<i>IL17RB</i>	rs2232350	3:53899178	T	C	p.I451T	302/1980	177/1596	3.1E-04	0.69	1.1E-04	0.67	94/904	72/622	3.7E-04	0.64	2.2E-02	0.73	
<i>IL17RA</i>	rs2241046	22:17586471	C	T	intron	1609/1980	1373/1596	1.4E-04	1.42	1.5E-04	1.42	781/904	534/622	6.4E-04	1.46	9.4E-03	1.40	
<i>IL16</i>	rs61752774	15:81584925	C	T	p.H483H	411/1980	419/1596	1.3E-04	1.36	1.7E-04	1.36	221/904	182/622	2.9E-02	1.24	1.8E-05	1.58	
<i>IL1RN</i>	rs200314326	2:113890216	C	T	intron	2/1980	21/1596	4.6E-06	13.2	4.1E-04	13.89	13/904	5/622	1.4E-05	14.43	1.0E-02	8.01	
<i>IL10RA</i>	rs2256111	11:117864047	A	G	p.A153A	1264/1980	933/1596	1.0E-03	0.80	8.2E-04	0.80	533/904	360/622	1.3E-02	0.81	7.9E-03	0.78	
<i>IL32</i>	rs369093137	16:3118183	C	T	p.D48D	5/1978	20/1596	4.0E-04	5.01	1.1E-03	5.24	11/904	9/622	2.3E-03	4.86	1.5E-03	5.79	
<i>IL1RL1</i>	rs4988956	2:102968007	G	A	p.A433T	238/1980	137/1596	9.7E-04	0.69	1.1E-03	0.69	91/904	40/622	1.3E-01	0.82	5.4E-05	0.50	
<i>IL15RA</i>	rs41294171	10:6005756	G	A	p.T111M	46/1980	13/1596	3.2E-04	0.35	1.2E-03	0.36	9/904	4/622	1.8E-02	0.42	6.5E-03	0.27	
<i>IL1RL1</i>	rs4988957	2:102968075	T	C	p.N455N	238/1980	138/1596	1.2E-03	0.69	1.3E-03	0.70	91/904	41/622	1.3E-01	0.82	7.8E-05	0.52	
<i>IL1RL1</i>	rs4988958	2:102968285	T	C	p.S525S	238/1980	138/1596	1.2E-03	0.69	1.3E-03	0.70	91/904	41/622	1.3E-01	0.82	7.8E-05	0.52	
<i>IL1RL1</i>	rs10192036	2:102968211	C	A	p.Q501R	238/1980	138/1596	1.2E-03	0.69	1.3E-03	0.70	91/904	41/622	1.3E-01	0.82	7.8E-05	0.52	
<i>IL1RL1</i>	rs10204137	2:102968212	A	G	p.Q501R	238/1980	138/1596	1.2E-03	0.69	1.3E-03	0.70	91/904	41/622	1.3E-01	0.82	7.8E-05	0.52	
<i>IL1RL1</i>	rs10192157	2:102968356	C	T	p.T549I	238/1980	138/1596	1.2E-03	0.69	1.3E-03	0.70	91/904	41/622	1.3E-01	0.82	7.8E-05	0.52	
<i>IL1RL1</i>	rs10206753	2:102968362	T	C	p.L551S	238/1980	138/1596	1.2E-03	0.69	1.3E-03	0.70	91/904	41/622	1.3E-01	0.82	7.8E-05	0.52	
<i>IL10RA</i>	rs2228054	11:117864113	G	A	p.P175P	604/1980	567/1596	1.6E-03	1.26	1.4E-03	1.25	322/904	221/622	6.8E-03	1.26	2.0E-02	1.26	
<i>IL36RN</i>	rs28938777	2:113819725	A	G	p.N47S	131/1980	151/1596	1.8E-03	1.47	1.4E-03	1.48	89/904	58/622	3.1E-03	1.54	2.7E-02	1.45	
<i>IL22RA</i>	rs185017476	1:24447716	G	C	p.P435R	54/1980	74/1596	2.7E-03	1.73	1.8E-03	1.76	48/904	24/622	7.2E-04	2.00	1.8E-01	1.43	
<i>IL10RB</i>	rs75303005	21:34655565	C	A	intron	37/1980	10/1596	1.0E-03	0.33	1.9E-03	0.32	8/904	2/622	5.2E-02	0.47	3.7E-03	0.17	
<i>IL16</i>	rs4072111	15:81578139	C	T	p.P434S	475/1980	457/1596	1.9E-03	1.27	2.0E-03	1.27	246/904	193/622	7.1E-02	1.18	6.2E-04	1.43	
<i>IL15RA</i>	rs2296139	10:6008172	C	T	p.T73T	582/1980	394/1596	1.7E-03	0.79	2.1E-03	0.79	237/904	138/622	8.3E-02	0.85	4.7E-04	0.68	
<i>IL10RA</i>	rs2228055	11:117864846	A	G	p.I224V	604/1980	563/1596	2.6E-03	1.24	2.2E-03	1.24	320/904	219/622	9.8E-03	1.25	3.0E-02	1.24	
<i>IL23R</i>	rs1884444	1:67633812	G	T	p.Q3H	1262/1980	1094/1596	2.6E-03	1.24	2.5E-03	1.24	610/904	434/622	5.3E-02	1.18	6.0E-03	1.31	
<i>IL27</i>	rs181206	16:28513403	A	G	p.L119P	138/1978	74/1594	3.4E-03	0.65	2.6E-03	0.64	41/902	30/622	1.2E-02	0.63	6.1E-02	0.68	
<i>IL19</i>	rs2243191	1:207015957	T	C	p.F175S	650/1980	597/1596	4.7E-03	1.22	3.6E-03	1.23	348/904	225/622	3.1E-03	1.28	1.3E-01	1.16	
<i>IL2RB</i>	rs2235330	22:37539713	T	C	intron	944/1980	683/1596	3.7E-03	0.82	3.6E-03	0.82	374/904	282/622	1.7E-03	0.77	3.1E-01	0.91	
<i>IL17RA</i>	rs141467790	22:17584454	G	A	p.R278H	57/1980	76/1596	3.3E-03	1.69	3.6E-03	1.68	49/904	27/622	1.3E-03	1.93	9.0E-02	1.53	
<i>IL16</i>	.	15:81517693	G	A	utr-5	2/1980	13/1596	1.1E-03	8.12	3.7E-03	9.21	8/904	5/622	2.2E-03	8.83	1.0E-02	8.01	
<i>IL19</i>	rs183483075	1:207009954	T	C	intron	7/1980	21/1596	1.7E-03	3.76	3.7E-03	3.52	14/904	7/622	1.2E-03	4.43	5.2E-02	3.21	
<i>IL17RA</i>	rs917864	22:17565932	T	C	utr-5	1142/1976	836/1588	2.3E-03	0.81	3.8E-03	0.82	498/898	306/620	2.6E-01	0.91	2.5E-04	0.71	
<i>IL9</i>	rs55692658	5:135231229	A	G	intron	91/1980	44/1596	4.6E-03	0.59	4.0E-03	0.58	24/904	19/622	1.4E-02	0.57	1.1E-01	0.65	
<i>IL16</i>	.	15:81584845	T	C	intron	1/1980	16/1596	2.4E-05	20.0	4.3E-03	19.19	9/904	7/622	2.0E-04	19.90	2.8E-04	22.53	
<i>IL1RL1</i>	rs55654747	2:102793186	A	G	p.K559K	29/1980	7/1596	2.1E-03	0.30	4.4E-03	0.30	2/904	4/622	1.4E-03	0.15	1.5E-01	0.44	
<i>IL4R</i>	rs2074570	16:27400000	T	C	utr-3	188/1980	197/1596	6.6E-03	1.34	4.8E-03	1.36	110/904	77/622	3.0E-02	1.32	4.0E-02	1.35	
<i>IL17RA</i>	rs879577	22:17589209	C	T	p.A367V	190/1978	198/1596	8.0E-03	1.33	5.0E-03	1.36	123/904	72/622	1.9E-03	1.48	1.7E-01	1.23	
<i>IL2RB</i>	rs228957	22:37533786	C	G	intron	1164/1980	868/1596	8.9E-03	0.84	5.4E-03	0.82	496/904	326/622	5.1E-02	0.85	5.3E-03	0.77	
<i>IL4R</i>	rs144651842	16:27356224	G	A	p.A82T	79/1978	36/1596	4.0E-03	0.55	5.5E-03	0.56	18/904	16/622	5.2E-03	0.49	1.1E-01	0.63	
<i>IL2RB</i>	rs228958	22:37533795	G	C	intron	1157/1974	865/1596	8.9E-03	0.84	5.8E-03	0.82	494/904	325/622	4.7E-02	0.85	5.3E-03	0.77	
<i>IL12RB2</i>	rs2252596	1:67833501	G	A	intron	471/1980	314/1596	3.4E-03	0.78	6.3E-03	0.80	174/904	127/622	7.0E-03	0.76	9.0E-02	0.82	
<i>IL15RA</i>	rs3181147	10:6008154	C	T	p.K79K	56/1980	23/1596	5.7E-03	0.50	7.0E-03	0.51	16/904	7/622	9.6E-02	0.62	1.6E-02	0.39	

<i>IL9</i>	.	5:135228036	A	G	utr-3	7/1980	19/1596	4.7E-03	3.40	7.0E-03	3.34	10/904	9/622	1.9E-02	3.15	5.3E-03	4.14
<i>IL15RA</i>	rs2229135	10:5995052	C	T	utr-3	140/1980	78/1596	7.4E-03	0.68	7.5E-03	0.67	44/904	32/622	2.6E-02	0.67	9.6E-02	0.71
<i>IL17RA</i>	rs917865	22:17565974	G	C	utr-5	1137/1974	841/1590	5.4E-03	0.83	7.9E-03	0.84	505/900	305/620	4.6E-01	0.94	2.5E-04	0.71
<i>IL17RA</i>	rs4819555	22:17590269	C	T	p.P720P	189/1980	194/1596	1.2E-02	1.31	8.4E-03	1.34	120/904	71/622	3.4E-03	1.45	1.9E-01	1.22
<i>IL18</i>	rs549908	11:112020916	T	G	p.S35S	247/1980	162/1596	3.0E-02	0.79	8.9E-03	0.75	96/904	59/622	1.7E-01	0.83	4.6E-02	0.74
<i>IL2RB</i>	rs228953	22:37531436	G	A	p.G250G	836/1980	605/1596	9.2E-03	0.84	9.3E-03	0.83	339/904	229/622	1.8E-02	0.82	1.7E-02	0.80
<i>IL18R1</i>	rs1035130	2:103001402	C	T	p.F251F	797/1980	717/1596	5.2E-03	1.21	1.0E-02	1.19	402/904	282/622	3.4E-02	1.19	2.5E-02	1.23
<i>IL1RL1</i>	rs34210856	2:102955474	C	T	p.A80V	64/1980	30/1596	1.2E-02	0.57	1.0E-02	0.56	21/904	9/622	1.9E-01	0.71	1.8E-02	0.44
<i>IL34</i>	rs201952472	16:70693884	C	T	intron	11/1980	23/1596	8.6E-03	2.62	1.1E-02	2.59	12/904	11/622	4.1E-02	2.41	9.2E-03	3.22
<i>IL17A</i>	rs3819025	6:52051274	G	A	intron	350/1980	332/1596	1.9E-02	1.22	1.2E-02	1.24	204/904	117/622	2.2E-03	1.36	5.1E-01	1.08
<i>IL1RL2</i>	rs2302622	2:102836521	G	C	intron	148/1980	88/1596	2.1E-02	0.72	1.2E-02	0.70	53/904	31/622	1.3E-01	0.77	3.6E-02	0.65
<i>IL1R1</i>	rs28362304	2:102791086	C	T	p.T344M	113/1980	63/1596	1.6E-02	0.68	1.3E-02	0.67	34/904	27/622	2.8E-02	0.65	2.2E-01	0.75
<i>IL5RA</i>	rs2290610	3:3139957	T	C	p.I129V	917/1980	800/1596	2.4E-02	1.17	1.3E-02	1.19	438/904	331/622	3.0E-01	1.09	2.8E-03	1.32
<i>IL22RA</i>	rs14340940	1:24463665	C	T	p.R104Q	10/1980	21/1596	1.1E-02	2.63	1.4E-02	2.54	11/904	10/622	5.6E-02	2.43	1.4E-02	3.22
<i>IL17RB</i>	rs2232342	3:53891608	G	C	intron	166/1980	101/1596	2.1E-02	0.74	1.5E-02	0.73	61/904	37/622	1.4E-01	0.79	4.9E-02	0.69
<i>IL17RB</i>	rs1043261	3:53899276	C	T	p.Q484*	396/1980	372/1596	1.8E-02	1.22	1.6E-02	1.22	212/904	145/622	3.9E-02	1.23	7.9E-02	1.22
<i>IL12RB</i>	rs1495963	1:67795319	T	C	p.S238S	1521/1980	1284/1596	8.9E-03	1.24	1.7E-02	1.22	731/904	496/622	1.5E-02	1.28	1.4E-01	1.19
<i>IL1RL1</i>	rs34225180	2:102957204	G	A	p.A176T	63/1980	31/1596	2.7E-02	0.60	1.8E-02	0.59	22/904	9/622	2.9E-01	0.76	2.4E-02	0.45
<i>IL21</i>	rs17886348	4:123533820	C	T	utr-3	6/1980	16/1596	9.2E-03	3.33	1.9E-02	3.12	9/904	7/622	2.4E-02	3.31	1.9E-02	3.74
<i>IL1RN</i>	rs432014	2:113888579	T	C	intron	147/1980	149/1596	4.4E-02	1.28	2.3E-02	1.33	84/904	60/622	8.9E-02	1.28	7.5E-02	1.33
<i>IL4R</i>	rs2234898	16:27373915	G	T	p.L414L	153/1980	94/1596	3.4E-02	0.75	2.7E-02	0.74	55/904	36/622	1.2E-01	0.77	1.1E-01	0.73
<i>IL4</i>	rs56279116	5:132010172	G	A	p.V53I	12/1980	2/1596	2.8E-02	0.21	2.7E-02	0.18	1/904	1/622	7.5E-02	0.18	3.2E-01	0.26
<i>IL1R1</i>	rs3917286	2:102781629	G	A	p.E117E	113/1980	66/1596	3.7E-02	0.71	2.8E-02	0.70	35/904	29/622	4.5E-02	0.67	3.6E-01	0.81
<i>IL1RN</i>	rs446433	2:113887273	G	A	intron	145/1980	146/1596	4.9E-02	1.27	2.8E-02	1.32	83/904	58/622	8.8E-02	1.28	1.2E-01	1.30
<i>IL21</i>	rs374848762	4:123541911	G	A	intron	4/1980	12/1596	2.1E-02	3.74	3.0E-02	3.56	6/904	6/622	8.1E-02	3.30	1.6E-02	4.81
<i>IL15RA</i>	rs3136618	10:6001696	C	T	intron	876/1978	651/1596	3.8E-02	0.87	3.0E-02	0.86	370/904	254/622	9.7E-02	0.87	1.4E-01	0.87
<i>IL17F</i>	rs2397084	6:52101844	T	C	p.E126G	24/1980	8/1596	3.1E-02	0.41	3.2E-02	0.42	5/904	3/622	1.1E-01	0.45	1.7E-01	0.39
<i>IL17B</i>	.	5:148754004	C	T	p.P157P	5/1958	13/1582	3.0E-02	3.24	3.2E-02	3.12	7/898	4/614	6.0E-02	3.07	2.3E-01	2.56
<i>IL1RN</i>	rs423904	2:113887262	C	T	intron	145/1980	145/1596	5.6E-02	1.26	3.3E-02	1.31	82/904	58/622	1.2E-01	1.26	1.2E-01	1.30
<i>IL17RA</i>	rs41513146	22:17581224	C	T	intron	277/1980	262/1596	4.8E-02	1.21	3.5E-02	1.22	135/904	115/622	5.3E-01	1.08	7.0E-03	1.39
<i>IL16</i>	rs186617577	15:81585167	A	G	p.Q564R	16/1980	4/1596	4.0E-02	0.31	3.5E-02	0.30	1/904	3/622	3.2E-02	0.14	5.9E-01	0.59
<i>IL1RL1</i>	rs13431828	2:102954653	C	T	utr-5	172/1980	107/1596	2.8E-02	0.76	3.6E-02	0.77	69/904	32/622	3.8E-01	0.87	3.6E-03	0.57
<i>IL12B</i>	.	5:158749392	T	C	intron	3/1980	9/1596	4.2E-02	3.74	3.6E-02	4.10	4/904	4/622	2.2E-01	2.93	6.1E-02	4.27
<i>IL9</i>	rs2069885	5:135228165	G	A	p.T117M	9/1980	18/1596	3.1E-02	2.50	3.7E-02	2.38	8/904	7/622	1.9E-01	1.96	7.6E-02	2.49
<i>IL13RA1</i>	.	X:117875074	T	C	p.N61N	2/1980	15/1596	2.9E-04	9.38	3.7E-02	3.59	15/904	0/622	1.8E-06	16.69	1	0.64
<i>IL1RN</i>	rs419598	2:113887207	T	C	p.A39A	146/1980	145/1596	6.5E-02	1.26	3.9E-02	1.30	82/904	58/622	1.2E-01	1.25	1.2E-01	1.29
<i>IL4R</i>	rs2234900	16:27373972	T	C	p.L433L	169/1980	108/1596	5.1E-02	0.78	4.1E-02	0.77	61/904	42/622	1.0E-01	0.78	1.8E-01	0.78
<i>IL4R</i>	rs1805012	16:27373964	T	C	p.C431R	169/1980	108/1596	5.1E-02	0.78	4.1E-02	0.77	61/904	42/622	1.0E-01	0.78	1.8E-01	0.78
<i>IL12B</i>	rs11574790	5:158743846	G	A	intron	97/1980	58/1596	6.9E-02	0.73	4.1E-02	0.71	27/904	27/622	1.8E-02	0.60	6.7E-01	0.88
<i>IL23R</i>	rs7530511	1:67685387	T	C	p.L310P	1961/1980	1590/1596	4.3E-02	2.57	4.4E-02	2.60	900/904	620/622	1.8E-01	2.18	2.0E-01	3.00
<i>IL11RA</i>	rs117149170	9:34658652	G	A	p.R261H	55/1976	28/1596	4.5E-02	0.62	4.4E-02	0.63	19/904	8/622	3.1E-01	0.75	3.6E-02	0.46
<i>IL1RN</i>	rs2234679	2:113875584	G	C	utr-5	200/1980	193/1596	6.0E-02	1.22	4.5E-02	1.24	112/904	74/622	7.0E-02	1.26	2.0E-01	1.20
<i>IL16</i>	rs1803275	15:81598416	G	A	p.R495R	327/1980	227/1596	6.3E-02	0.84	4.6E-02	0.83	133/904	87/622	2.3E-01	0.87	1.5E-01	0.82
<i>IL11RA</i>	rs377455614	9:34658493	G	A	intron	11/1980	2/1596	4.7E-02	0.22	5.0E-02	0.22	1/904	1/622	1.2E-01	0.20	3.1E-01	0.29
<i>IL16</i>	rs11556218	15:81598269	T	G	p.N446K	326/1978	227/1596	7.0E-02	0.84	5.0E-02	0.83	133/904	87/622	2.5E-01	0.87	1.5E-01	0.82
<i>IL16</i>	rs17875533	15:81598225	C	A	intron	326/1978	227/1596	7.0E-02	0.84	5.1E-02	0.83	133/904	87/622	2.5E-01	0.87	1.5E-01	0.82
<i>IL1RN</i>	rs315952	2:113890304	T	C	p.S112S	1086/1980	826/1596	6.9E-02	0.88	5.1E-02	0.88	466/904	321/622	1.1E-01	0.88	1.7E-01	0.88
<i>IL34</i>	rs192356278	16:70694048	G	C	p.S229S	29/1980	11/1596	3.6E-02	0.47	5.2E-02	0.50	7/904	4/622	1.5E-01	0.53	1.5E-01	0.44
<i>IL1RN</i>	rs16065	2:113875631	T	C	intron	201/1980	193/1596	6.8E-02	1.22	5.2E-02	1.23	112/904	74/622	8.1E-02	1.25	2.3E-01	1.20
<i>IL4R</i>	rs1805015	16:27374180	T	C	p.S503P	172/1980	112/1596	7.1E-02	0.79	5.4E-02	0.78	61/904	46/622	7.8E-02	0.76	3.6E-01	0.84
<i>IL4R</i>	rs1805011	16:27373872	A	C	p.E400A	168/1980	109/1596	6.8E-02	0.79	5.5E-02	0.78	61/904	43/622	1.2E-01	0.78	2.4E-01	0.80
<i>IL5RA</i>	rs76491540	3:3133882	A	G	intron	24/1980	9/1596	5.2E-02	0.46	5.5E-02	0.48	6/904	3/622	2.4E-01	0.54	1.7E-01	0.39
<i>IL10RB</i>	rs2834167	21:34640788	A	G	p.K47E	1155/1980	880/1596	5.7E-02	0.88	5.9E-02	0.88	525/904	314/622	9.0E-01	0.99	6.0E-04	0.73
<i>IL3</i>	rs368591512	5:131396723	C	T	intron	7/1980	13/1596	7.4E-02	2.31	6.0E-02	2.45	7/904	6/622	1.5E-01	2.20	9.4E-02	2.75

IL1RN	rs2234678	2:113875565	A	G	utr-5	200/1980	191/1596	8.4E-02	1.21	6.0E-02	1.23	111/904	73/622	8.1E-02	1.25	2.6E-01	1.18
IL10	rs5743627	1:206943116	T	C	intron	54/1980	29/1596	7.5E-02	0.66	6.3E-02	0.65	20/904	9/622	4.5E-01	0.81	7.3E-02	0.52
IL1RN	rs2234677	2:113875509	G	A	utr-5	202/1980	192/1596	8.6E-02	1.20	6.4E-02	1.22	112/904	73/622	8.2E-02	1.24	3.0E-01	1.17
IL10RB	rs201327188	21:34655569	G	A	intron	1/1980	5/1596	9.5E-02	6.22	6.7E-02	7.51	3/904	1/622	9.4E-02	6.59	4.2E-01	3.19
IL4R	rs3024676	16:27373558	C	A	intron	169/1980	111/1596	9.1E-02	0.80	6.7E-02	0.79	61/904	45/622	1.0E-01	0.78	3.2E-01	0.84
IL6R	rs368432006	1:154408594	G	A	intron	1/1980	6/1596	5.0E-02	7.47	6.7E-02	7.29	5/904	1/622	1.3E-02	11.01	4.2E-01	3.19
IL17B	rs353271	5:148758695	A	C	intron	158/1968	102/1590	7.0E-02	0.79	7.1E-02	0.79	64/902	34/618	4.1E-01	0.87	4.3E-02	0.67
IL1R1	.	2:102782768	G	C	intron	1/1980	5/1596	9.5E-02	6.22	8.1E-02	6.85	4/904	1/622	3.6E-02	8.80	4.2E-01	3.19
IL1RN	rs878972	2:113877713	A	C	intron	203/1976	191/1596	1.2E-01	1.19	8.8E-02	1.20	112/904	73/622	9.5E-02	1.24	3.0E-01	1.16
IL6R	rs77572132	1:154422490	C	T	intron	7/1980	1/1596	8.3E-02	0.18	8.8E-02	0.16	1/904	0/622	4.5E-01	0.31	2.1E-01	0.21
IL1RL2	rs2302612	2:102851708	T	C	p.L550P	594/1980	523/1596	8.1E-02	1.14	9.3E-02	1.13	299/904	193/622	9.9E-02	1.15	6.5E-01	1.05
IL22	.	12:68646548	A	G	p.V83A	1/1978	5/1596	9.5E-02	6.21	9.7E-02	6.22	4/904	1/622	3.6E-02	8.79	4.2E-01	3.18
IL12RB1	rs436857	19:18197635	G	A	utr-5	167/1980	112/1596	1.2E-01	0.82	9.9E-02	0.81	56/904	50/622	4.2E-02	0.72	8.0E-01	0.95
IL17RA	rs41323645	22:17590180	G	A	p.A691T	10/1978	3/1596	1.6E-01	0.37	9.9E-02	0.34	3/904	0/622	7.7E-01	0.66	1.3E-01	0.15
IL15	rs199980417	4:142643205	G	A	intron	7/1978	1/1596	8.3E-02	0.18	1.0E-01	0.17	1/904	0/622	4.5E-01	0.31	2.1E-01	0.21
IL1RAP	rs41347444	3:190282187	G	A	intron	42/1980	22/1596	1.0E-01	0.64	1.0E-01	0.64	13/904	8/622	2.4E-01	0.67	2.4E-01	0.60
IL18	rs527277500	11:112020778	C	T	intron	8/1980	1/1596	4.9E-02	0.15	1.0E-01	0.18	1/904	0/622	2.9E-01	0.27	2.1E-01	0.19
IL34	rs4985556	16:70694000	C	A	p.Y213*	141/1980	136/1596	1.3E-01	1.21	1.0E-01	1.23	78/904	52/622	1.7E-01	1.23	2.9E-01	1.19
IL26	rs10748100	12:68595719	T	C	intron	987/1980	843/1596	8.0E-02	1.13	1.1E-01	1.11	467/904	335/622	3.8E-01	1.08	8.9E-02	1.17
IL22RA1	rs17852648	1:24448084	G	A	p.P312P	581/1980	514/1596	6.8E-02	1.14	1.1E-01	1.12	294/904	199/622	8.9E-02	1.16	2.1E-01	1.13
IL12B	rs2288831	5:158750013	T	C	intron	913/1980	775/1596	1.5E-01	1.10	1.1E-01	1.12	435/904	313/622	3.3E-01	1.08	7.3E-02	1.18
IL17B	rs75556495	5:148756272	A	G	intron	76/1978	46/1596	1.4E-01	0.74	1.1E-01	0.74	30/904	14/622	5.2E-01	0.86	6.0E-02	0.58
IL18	rs201248108	11:112019298	T	C	intron	10/1978	15/1596	1.6E-01	1.87	1.2E-01	1.91	6/904	7/622	6.0E-01	1.31	1.5E-01	2.24
IL4R	rs539527236	16:27351516	C	A	utr-5	1/1980	4/1596	1.8E-01	4.97	1.2E-01	5.77	4/904	0/622	3.6E-02	8.80	1	1.06
IL1RAP1	rs181376291	X:104961529	C	T	intron	1/1976	4/1596	1.8E-01	4.96	1.2E-01	5.76	3/904	1/622	9.4E-02	6.58	4.2E-01	3.18
IL17RB	rs3733075	3:53886912	C	T	p.Y123Y	1177/1980	903/1596	8.8E-02	0.89	1.2E-01	0.90	515/904	344/622	2.2E-01	0.90	6.9E-02	0.84
IL13	rs1295686	5:131995843	T	C	intron	1281/1980	1070/1596	1.5E-01	1.11	1.2E-01	1.12	603/904	422/622	3.1E-01	1.09	1.6E-01	1.15
IL1RL1	rs370287545	2:102959641	T	C	spliceSite	2/1980	6/1596	1.5E-01	3.73	1.2E-01	3.54	4/904	2/622	8.1E-02	4.40	2.4E-01	3.19
IL15RA	rs2228059	10:6002368	T	G	p.N182T	883/1978	673/1596	1.4E-01	0.90	1.2E-01	0.90	383/904	263/622	2.6E-01	0.91	3.1E-01	0.91
IL17RA	rs2229151	22:17589297	G	A	p.L396L	594/1978	521/1596	9.5E-02	1.13	1.3E-01	1.12	289/904	206/622	3.0E-01	1.09	1.5E-01	1.15
IL12A	rs559020447	3:159706926	C	T	p.S28F	10/1980	3/1596	1.6E-01	0.37	1.3E-01	0.36	2/904	1/622	3.6E-01	0.44	4.8E-01	0.32
IL22RA1	rs3795299	1:24447468	G	C	p.R518G	1382/1980	1070/1596	8.2E-02	0.88	1.3E-01	0.90	602/904	419/622	9.1E-02	0.86	2.5E-01	0.89
IL1B	rs140794289	2:113591114	G	A	p.G46G	51/1980	29/1596	1.4E-01	0.70	1.3E-01	0.70	17/904	12/622	2.9E-01	0.72	4.5E-01	0.74
IL16	rs139031744	15:81578206	C	T	intron	3/1980	7/1596	1.2E-01	2.90	1.4E-01	2.82	5/904	2/622	1.2E-01	3.67	3.4E-01	2.13
IL10	rs1554286	1:206944233	A	G	intron	616/1980	540/1596	8.4E-02	1.13	1.4E-01	1.12	306/904	212/622	1.4E-01	1.13	1.7E-01	1.14
IL22	.	12:68645344	A	G	p.D137D	6/1980	10/1596	2.1E-01	2.07	1.4E-01	2.17	4/904	6/622	5.2E-01	1.46	4.4E-02	3.20
IL17B	rs2227457	5:148756270	A	T	intron	143/1978	140/1596	9.3E-02	1.23	1.4E-01	1.20	81/904	57/622	1.2E-01	1.26	1.2E-01	1.29
IL10RA	rs56175324	11:117857271	C	T	intron	49/1964	50/1588	2.6E-01	1.27	1.4E-01	1.35	28/900	22/618	3.8E-01	1.25	1.6E-01	1.44
IL27	rs200162263	16:28510969	C	T	utr-3	1/1974	4/1586	1.8E-01	4.99	1.4E-01	5.18	1/900	3/616	5.3E-01	2.19	4.4E-02	9.66
IL17RA	rs879575	22:17589567	C	T	p.I486I	148/1980	139/1596	1.9E-01	1.18	1.4E-01	1.20	90/904	47/622	2.8E-02	1.37	9.3E-01	1.01
IL4R	.	16:27374475	C	G	p.A601G	1/1980	4/1596	1.8E-01	4.97	1.5E-01	5.16	4/904	0/622	3.6E-02	8.80	1	1.06
IL23R	rs201869007	1:67706013	G	T	intron	1/1980	4/1596	1.8E-01	4.97	1.5E-01	5.16	2/904	1/622	2.3E-01	4.39	4.2E-01	3.19
IL6	.	7:22771007	A	G	intron	1/1980	4/1596	1.8E-01	4.97	1.5E-01	5.16	3/904	1/622	9.4E-02	6.59	4.2E-01	3.19
IL1B	rs200401035	2:113590977	G	A	p.T92I	6/1980	1/1596	1.4E-01	0.21	1.5E-01	0.21	0/904	1/622	1.9E-01	0.17	1	0.53
IL15RA	rs139797654	10:5995297	G	A	intron	12/1942	5/1594	2.3E-01	0.51	1.5E-01	0.46	2/902	3/622	2.5E-01	0.36	1	0.78
IL26	rs10748101	12:68595787	A	G	intron	1000/1980	849/1596	1.1E-01	1.11	1.5E-01	1.10	473/904	335/622	3.8E-01	1.08	1.5E-01	1.14
IL1A	rs17561	2:113537223	C	A	p.A114S	118/1980	78/1596	1.8E-01	0.81	1.5E-01	0.81	46/904	27/622	3.9E-01	0.85	1.3E-01	0.72
IL34	rs3813905	16:70680850	C	G	utr-5	550/1978	410/1596	1.6E-01	0.90	1.6E-01	0.90	239/904	155/622	4.7E-01	0.93	1.6E-01	0.86
IL1R1	rs189697285	2:102793187	C	G	p.L560V	6/1980	1/1596	1.4E-01	0.21	1.7E-01	0.22	1/904	0/622	4.5E-01	0.36	3.5E-01	0.24
IL4R	rs530539235	16:27374931	C	T	p.S753L	4/1980	8/1596	1.5E-01	2.49	1.7E-01	2.35	2/904	6/622	1	1.10	1.6E-02	4.81
IL16	rs17875502	15:81589448	G	A	intron	525/1980	390/1596	1.7E-01	0.90	1.7E-01	0.90	227/904	148/622	4.4E-01	0.93	1.9E-01	0.87
IL17RA	.	22:17590075	C	T	p.P656S	1/1976	4/1596	1.8E-01	4.96	1.8E-01	4.57	3/904	0/622	9.4E-02	6.58	1	1.06
IL1R1	rs3213736	2:102785142	G	C	intron	391/1980	289/1596	2.3E-01	0.90	1.8E-01	0.89	173/904	102/622	7.2E-01	0.96	6.9E-02	0.80
IL1R2	.	2:102638640	C	T	intron	2/1980	4/1596	4.2E-01	2.48	1.8E-01	3.24	4/904	0/622	8.1E-02	4.40	1	0.64

IL24	rs187890178	1:207076431	C	G	utr-3	3/1980	6/1596	2.0E-01	2.49	1.8E-01	2.62	3/904	1/622	3.9E-01	2.19	1	1.06
IL6	rs2069849	7:22771156	C	T	p.F201F	8/1980	12/1596	1.8E-01	1.87	1.8E-01	1.86	4/904	7/622	1	1.10	6.1E-02	2.81
IL6	rs13306435	7:22771039	T	A	p.D162E	45/1980	26/1596	1.9E-01	0.71	1.8E-01	0.72	17/904	5/622	5.8E-01	0.82	1.8E-02	0.35
IL17RB	.	3:53886135	C	T	p.T112T	3/1980	7/1596	1.2E-01	2.90	1.8E-01	2.51	4/904	3/622	2.2E-01	2.93	1.5E-01	3.19
IL7	rs201412253	8:79710402	C	T	p.V18I	1/1980	3/1596	3.3E-01	3.73	1.9E-01	4.66	2/904	1/622	2.3E-01	4.39	4.2E-01	3.19
IL17RA	rs74827998	22:17590498	A	G	p.I797V	9/1978	3/1596	2.5E-01	0.41	1.9E-01	0.41	1/904	2/622	1.9E-01	0.24	1	0.71
IL21	rs117127666	4:123533862	T	G	utr-3	59/1980	61/1596	1.9E-01	1.29	1.9E-01	1.28	41/904	17/622	3.7E-02	1.55	8.9E-01	0.91
IL8	.	4:74606303	G	A	utr-5	4/1980	7/1596	2.4E-01	2.18	1.9E-01	2.30	3/904	3/622	6.8E-01	1.64	3.7E-01	2.39
IL12B	.	5:158750071	C	A	p.D119Y	4/1980	7/1596	2.4E-01	2.18	1.9E-01	2.30	4/904	3/622	2.7E-01	2.20	3.7E-01	2.39
IL1R1	rs540642060	2:102782689	A	G	p.T201P	5/1980	1/1596	2.3E-01	0.25	1.9E-01	0.24	0/904	1/622	3.3E-01	0.20	1	0.64
IL1A	rs376874217	2:113537105	G	A	p.T153M	2/1980	5/1596	2.5E-01	3.11	1.9E-01	3.00	4/904	1/622	8.1E-02	4.40	5.6E-01	1.59
IL4R	rs2074572	16:27356359	C	T	intron	714/1972	615/1594	1.5E-01	1.11	2.0E-01	1.09	340/902	251/622	4.5E-01	1.07	6.4E-02	1.19
IL36RN	rs2278716	2:113816940	C	G	intron	335/1980	246/1596	2.4E-01	0.89	2.1E-01	0.89	128/904	107/622	6.3E-02	0.81	8.5E-01	1.02
IL36RN	rs2278717	2:113816942	A	C	intron	335/1980	246/1596	2.4E-01	0.89	2.1E-01	0.89	128/904	107/622	6.3E-02	0.81	8.5E-01	1.02
IL13RA2.	X:114242682	T	C	intron	1/1980	6/1596	5.0E-02	7.47	2.1E-01	2.94	2/904	4/622	2.3E-01	4.39	1.3E-02	12.81	
IL16	rs17875534	15:81598238	G	A	intron	1/1978	4/1596	1.8E-01	4.97	2.1E-01	4.04	3/904	1/622	9.4E-02	6.58	4.2E-01	3.18
IL25	rs144496239	14:23842147	C	G	utr-5	31/1980	17/1596	2.4E-01	0.68	2.2E-01	0.69	10/904	6/622	4.0E-01	0.70	3.3E-01	0.61
IL15RA	.	10:6019437	G	A	p.R7C	5/1888	1/1540	2.3E-01	0.24	2.2E-01	0.26	1/866	0/608	6.7E-01	0.44	3.4E-01	0.28
IL12RB1	rs145487261	19:18184378	C	T	p.S244L	5/1978	1/1596	2.3E-01	0.25	2.2E-01	0.26	0/904	1/622	3.3E-01	0.20	1	0.64
IL11RA	rs200369324	9:34660291	C	A	p.P325T	5/1980	1/1596	2.3E-01	0.25	2.2E-01	0.26	0/904	1/622	3.3E-01	0.20	1	0.64
IL17RA	rs186541010	22:17583085	G	T	p.V219L	5/1980	1/1596	2.3E-01	0.25	2.2E-01	0.26	1/904	0/622	6.7E-01	0.44	6.0E-01	0.29
IL1R2	rs3218976	2:102641117	G	A	p.E292K	5/1980	1/1596	2.3E-01	0.25	2.2E-01	0.26	0/904	1/622	3.3E-01	0.20	1	0.64
IL13	rs371914367	5:131995118	C	T	p.L61L	7/1980	11/1596	2.3E-01	1.96	2.3E-01	1.81	8/904	3/622	9.1E-02	2.52	7.1E-01	1.37
IL1R2	rs2241081	2:102644698	G	A	p.T347T	21/1980	10/1596	2.0E-01	0.59	2.3E-01	0.62	8/904	2/622	8.4E-01	0.83	1.4E-01	0.30
IL23R	.	1:67666483	A	G	p.S185S	1/1980	3/1596	3.3E-01	3.73	2.3E-01	4.07	1/904	2/622	5.3E-01	2.19	1.4E-01	6.38
IL36RN	rs199932303	2:113820090	C	T	p.R102W	1/1980	3/1596	3.3E-01	3.73	2.3E-01	4.07	1/904	2/622	5.3E-01	2.19	1.4E-01	6.38
IL10RB	rs387907326	21:34652146	G	A	p.E141K	2/1980	5/1596	2.5E-01	3.11	2.3E-01	2.76	2/904	3/622	5.9E-01	2.19	9.2E-02	4.79
IL5	rs368875825	5:131879037	A	G	p.I45T	2/1980	5/1596	2.5E-01	3.11	2.3E-01	2.76	3/904	2/622	1.8E-01	3.29	2.4E-01	3.19
IL12RB2	rs78198420	1:67796346	A	T	p.N271Y	8/1980	2/1596	2.0E-01	0.31	2.3E-01	0.38	1/904	1/622	2.9E-01	0.27	7.0E-01	0.40
IL4R	rs1801275	16:27374400	A	G	p.Q576R	389/1980	340/1596	2.3E-01	1.11	2.3E-01	1.11	188/904	136/622	4.8E-01	1.07	2.3E-01	1.14
IL6R	rs6694817	1:154401972	T	C	intron	917/1974	709/1596	2.4E-01	0.92	2.3E-01	0.92	390/904	295/622	9.8E-02	0.87	6.8E-01	1.04
IL13RA1	rs188727867	X:117891977	G	T	intron	6/1980	1/1596	1.4E-01	0.21	2.4E-01	0.34	0/904	1/622	1.9E-01	0.17	1	0.53
IL12RB1	rs11575934	19:18186618	T	C	p.Q214R	700/1978	535/1596	2.6E-01	0.92	2.4E-01	0.92	288/904	221/622	6.9E-02	0.85	9.6E-01	1.01
IL13	rs20541	5:131995964	A	G	p.Q144R	1284/1980	1062/1596	3.0E-01	1.08	2.5E-01	1.09	602/904	415/622	3.8E-01	1.08	4.1E-01	1.09
IL2RA	rs2228150	10:6067969	C	T	p.P28P	4/1980	1/1596	3.9E-01	0.31	2.5E-01	0.28	1/904	0/622	1	0.55	5.8E-01	0.35
IL2RB	rs201360122	22:37531379	G	A	p.N269N	4/1980	1/1596	3.9E-01	0.31	2.5E-01	0.28	0/904	1/622	3.2E-01	0.24	1	0.80
IL12A	rs55691228	3:159713243	C	T	p.P220L	4/1980	1/1596	3.9E-01	0.31	2.5E-01	0.28	0/904	1/622	3.2E-01	0.24	1	0.80
IL10RB	rs148466782	21:34648942	C	T	p.T72M	5/1980	1/1596	2.3E-01	0.25	2.5E-01	0.28	1/904	0/622	6.7E-01	0.44	6.0E-01	0.29
IL18RA1	.	2:103040858	C	A	p.A188E	2/1980	4/1596	4.2E-01	2.48	2.6E-01	2.70	2/904	1/622	5.9E-01	2.19	5.6E-01	1.59
IL24	rs530910379	1:207073583	A	G	intron	14/1976	7/1596	3.8E-01	0.62	2.7E-01	0.59	4/904	3/622	6.1E-01	0.62	7.8E-01	0.68
IL21	rs537707257	4:123541787	A	T	intron	14/1980	7/1596	3.8E-01	0.62	2.7E-01	0.59	5/904	2/622	8.1E-01	0.78	3.9E-01	0.45
IL17RA	rs3804060	22:17590599	C	T	p.P830P	155/1978	140/1596	3.3E-01	1.13	2.7E-01	1.15	75/904	61/622	6.6E-01	1.06	1.3E-01	1.28
IL17RA	rs183650149	22:17582958	T	C	intron	6/1980	2/1596	3.1E-01	0.41	2.7E-01	0.40	2/904	0/622	1	0.73	3.5E-01	0.24
IL13RA1	rs2495636	X:117925898	A	G	utr-3	937/1974	720/1596	1.7E-01	0.91	2.7E-01	0.94	391/904	303/622	3.6E-02	0.84	6.1E-01	1.05
IL26	.	12:68619275	G	A	p.D59D	1/1980	3/1596	3.3E-01	3.73	2.8E-01	3.53	1/904	2/622	5.3E-01	2.19	1.4E-01	6.38
IL7	rs577091125	8:79710270	T	C	intron	1/1980	3/1596	3.3E-01	3.73	2.8E-01	3.53	2/904	1/622	2.3E-01	4.39	4.2E-01	3.19
IL1R2	rs3218959	2:102638615	C	T	intron	8/1980	11/1596	2.6E-01	1.71	2.8E-01	1.66	7/904	4/622	2.6E-01	1.92	5.0E-01	1.60
IL11RA	rs553842580	9:34657012	G	A	intron	7/1980	10/1596	3.3E-01	1.78	2.8E-01	1.71	6/904	4/622	2.5E-01	1.88	3.1E-01	1.82
IL1RAP	rs146043981	3:190366464	C	A	p.G561G	11/1980	14/1596	3.1E-01	1.58	2.8E-01	1.52	7/904	7/622	4.6E-01	1.40	1.6E-01	2.04
IL18RA1	rs11465723	2:103063520	G	A	intron	36/1976	23/1596	4.3E-01	0.79	2.9E-01	0.75	13/904	7/622	5.4E-01	0.79	2.8E-01	0.61
IL17F	rs117796773	6:52103527	C	A	spliceSite	30/1980	31/1596	3.6E-01	1.29	2.9E-01	1.32	18/904	10/622	3.5E-01	1.32	8.5E-01	1.06
IL12RB1	rs17852635	19:18186575	G	A	p.P228P	696/1978	535/1596	3.0E-01	0.93	3.0E-01	0.93	287/904	222/622	7.5E-02	0.86	8.5E-01	1.02
IL12RB2	rs2228420	1:67852335	G	A	p.T643I	607/1980	467/1596	3.8E-01	0.94	3.0E-01	0.93	264/904	183/622	4.6E-01	0.93	5.8E-01	0.94
IL10RA	rs4252249	11:117859209	G	A	p.A60V	101/1980	93/1596	3.7E-01	1.15	3.0E-01	1.17	46/904	41/622	1	1.00	1.6E-01	1.31

IL22	rs2227491	12:68646521	T	C	intron	1002/1978	839/1596	2.7E-01	1.08	3.0E-01	1.07	479/904	323/622	2.6E-01	1.10	5.8E-01	1.05
IL2	rs540787352	4:123372711	T	G	utr-3	1/1722	4/1546	2.0E-01	4.46	3.0E-01	2.96	2/872	0/604	2.6E-01	3.96	1	0.95
IL22	rs548755284	12:68646508	C	T	intron	13/1978	16/1596	2.7E-01	1.53	3.0E-01	1.48	11/904	4/622	1.3E-01	1.86	1	0.98
IL23A	.	12:56733399	G	T	intron	2/1978	4/1596	4.2E-01	2.48	3.1E-01	2.45	0/904	4/622	1	0.44	3.2E-02	6.39
IL13RA1	.	X:117875014	T	C	p.S41S	1/1980	2/1596	5.9E-01	2.48	3.1E-01	3.52	2/904	0/622	2.3E-01	4.39	1	1.06
IL32	rs2239303	16:3117937	G	A	intron	875/1978	678/1596	2.9E-01	0.93	3.1E-01	0.93	380/904	277/622	2.7E-01	0.91	9.3E-01	1.01
IL22RA1	rs17852649	1:24460797	T	G	p.P145P	626/1980	534/1596	2.5E-01	1.09	3.1E-01	1.08	307/904	207/622	2.1E-01	1.11	4.6E-01	1.08
IL6R	rs567699349	1:154378130	C	T	p.L9L	8/1966	3/1588	3.7E-01	0.46	3.1E-01	0.50	3/900	0/622	1	0.82	2.1E-01	0.19
IL10	rs534191384	1:206944604	C	T	intron	5/1978	2/1596	4.7E-01	0.50	3.2E-01	0.43	2/904	0/622	1	0.87	6.0E-01	0.29
IL12RB2	rs191377276	1:67793935	T	A	p.C178S	10/1980	5/1596	4.4E-01	0.62	3.2E-01	0.57	2/904	2/622	3.6E-01	0.44	7.4E-01	0.64
IL1F10	rs140754412	2:113832807	G	A	p.A109T	7/1980	3/1596	5.3E-01	0.53	3.2E-01	0.50	2/904	1/622	7.3E-01	0.62	6.9E-01	0.45
IL10	rs5743628	1:206941945	A	G	utr-3	19/1980	22/1596	2.7E-01	1.44	3.2E-01	1.36	8/904	11/622	1	0.92	1.3E-01	1.86
IL1RAP	rs41500851	3:190338265	A	G	intron	275/1980	203/1596	3.2E-01	0.90	3.3E-01	0.91	108/904	85/622	1.6E-01	0.84	9.5E-01	0.98
IL34	rs8046424	16:70690989	G	C	p.E123Q	1375/1978	1084/1596	3.1E-01	0.93	3.3E-01	0.93	615/904	423/622	4.3E-01	0.93	4.9E-01	0.93
IL12RB2	rs78878673	1:67845727	G	C	p.V592V	12/1980	6/1596	4.8E-01	0.62	3.3E-01	0.61	5/904	1/622	1	0.91	3.2E-01	0.26
IL12RB2	rs189685637	1:67852381	A	T	intron	12/1980	6/1596	4.8E-01	0.62	3.3E-01	0.61	5/904	1/622	1	0.91	3.2E-01	0.26
IL16	rs114719112	15:81592847	C	A	intron	1/1980	3/1596	3.3E-01	3.73	3.4E-01	3.03	2/904	1/622	2.3E-01	4.39	4.2E-01	3.19
IL1R2	.	2:102608572	G	A	intron	28/1966	30/1594	2.9E-01	1.33	3.4E-01	1.29	16/902	14/622	5.1E-01	1.25	2.0E-01	1.59
IL19	rs533618202	1:207014295	A	G	intron	4/1970	1/1592	3.9E-01	0.31	3.4E-01	0.34	1/904	0/618	1	0.54	5.8E-01	0.35
IL12RB1	.	19:18193127	G	A	intron	3/1968	1/1596	6.3E-01	0.41	3.4E-01	0.33	1/904	0/622	1	0.73	1	0.45
IL12RB1	.	19:18182864	G	A	intron	3/1980	1/1596	6.3E-01	0.41	3.4E-01	0.33	1/904	0/622	1	0.73	1	0.45
IL4R	rs567844985	16:27373539	G	A	intron	3/1980	1/1596	6.3E-01	0.41	3.4E-01	0.33	0/904	1/622	5.6E-01	0.31	1	1.06
IL1R2	rs148258277	2:102644771	C	T	p.R372W	36/1980	35/1596	4.7E-01	1.21	3.5E-01	1.26	23/904	12/622	2.0E-01	1.41	8.6E-01	1.06
IL5RA	rs13097407	3:3144519	A	G	intron	97/1980	69/1596	4.3E-01	0.88	3.5E-01	0.86	46/904	22/622	8.5E-01	1.04	1.9E-01	0.71
IL21	rs17879298	4:123533834	G	A	utr-3	2/1980	4/1596	4.2E-01	2.48	3.6E-01	2.23	3/904	1/622	1.8E-01	3.29	5.6E-01	1.59
IL5RA	rs2290609	3:3144508	T	C	spliceSite	7/1980	3/1596	5.3E-01	0.53	3.6E-01	0.53	3/904	0/622	1	0.94	2.1E-01	0.21
IL1RL2	rs201684910	2:102835479	G	A	p.R264K	10/1980	12/1596	3.9E-01	1.49	3.6E-01	1.49	8/904	4/622	3.1E-01	1.76	7.5E-01	1.28
IL16	rs201542634	15:81591890	T	C	p.N40N	6/1980	8/1596	4.2E-01	1.66	3.6E-01	1.65	4/904	4/622	5.2E-01	1.46	2.6E-01	2.13
IL4R	rs558584235	16:27373723	C	T	p.V350V	5/1980	2/1596	4.7E-01	0.50	3.6E-01	0.46	1/904	1/622	6.7E-01	0.44	1	0.64
IL5RA	rs200968686	3:3137142	C	T	intron	8/1980	4/1596	5.7E-01	0.62	3.6E-01	0.57	2/904	2/622	7.3E-01	0.55	1	0.80
IL22RA1	rs148768286	1:24448224	C	T	p.V266I	11/1980	5/1596	3.2E-01	0.56	3.7E-01	0.61	4/904	1/622	7.9E-01	0.80	3.1E-01	0.29
IL1RL2	rs553390385	2:102803492	C	T	utr-5	1/1980	2/1596	5.9E-01	2.48	3.8E-01	2.95	1/904	1/622	5.3E-01	2.19	4.2E-01	3.19
IL17F	.	6:52103683	G	T	p.I33I	1/1980	2/1596	5.9E-01	2.48	3.8E-01	2.95	2/904	0/622	2.3E-01	4.39	1	1.06
IL1RL2	.	2:102805705	C	T	p.D76D	1/1980	2/1596	5.9E-01	2.48	3.8E-01	2.95	1/904	1/622	5.3E-01	2.19	4.2E-01	3.19
IL15RA	rs141171117	10:5995147	C	T	p.V239I	1/1980	2/1596	5.9E-01	2.48	3.8E-01	2.95	1/904	1/622	5.3E-01	2.19	4.2E-01	3.19
IL16	rs199597387	15:81592411	G	C	p.R214T	1/1980	2/1596	5.9E-01	2.48	3.8E-01	2.95	2/904	0/622	2.3E-01	4.39	1	1.06
IL18RA1	.	2:103040423	G	A	p.G75S	1/1980	2/1596	5.9E-01	2.48	3.8E-01	2.95	2/904	0/622	2.3E-01	4.39	1	1.06
IL1R1	.	2:102782687	A	C	p.T201P	1/1980	2/1596	5.9E-01	2.48	3.8E-01	2.95	1/904	1/622	5.3E-01	2.19	4.2E-01	3.19
IL34	rs192337001	16:70680866	A	C	p.T6P	1/1980	2/1596	5.9E-01	2.48	3.8E-01	2.95	1/904	1/622	5.3E-01	2.19	4.2E-01	3.19
IL2RB	rs200052713	22:37535236	G	A	p.I103I	1/1978	2/1596	5.9E-01	2.48	3.8E-01	2.95	0/904	1/622	1	0.73	4.2E-01	3.18
IL15RA	.	10:6019364	C	G	spliceSite	1/1840	2/1502	5.9E-01	2.45	3.9E-01	2.92	0/838	2/600	1	0.73	1.5E-01	6.15
IL18R1	rs12619169	2:103011084	G	A	p.G423R	44/1980	42/1596	4.4E-01	1.19	3.9E-01	1.21	29/904	12/622	1.3E-01	1.46	7.5E-01	0.87
IL10RA	rs2229115	11:117869591	C	T	p.T324T	48/1980	43/1596	6.7E-01	1.11	3.9E-01	1.20	25/904	18/622	6.1E-01	1.14	5.6E-01	1.20
IL7	rs56222538	8:79650733	G	A	intron	103/1980	71/1596	3.1E-01	0.85	4.0E-01	0.88	38/904	30/622	2.7E-01	0.80	7.6E-01	0.92
IL2RB	rs146343943	22:375358638	C	T	intron	48/1970	32/1594	4.3E-01	0.82	4.0E-01	0.83	20/902	10/622	7.9E-01	0.91	2.8E-01	0.65
IL11RA	rs35066989	9:34660537	C	T	p.A370V	15/1980	16/1596	4.7E-01	1.33	4.0E-01	1.36	9/904	5/622	5.1E-01	1.32	1	1.06
IL7	rs544901703	8:79717132	G	A	intron	6/1980	2/1596	3.1E-01	0.41	4.0E-01	0.50	1/904	1/622	4.5E-01	0.36	1	0.53
IL23R	rs557459277	1:67633778	G	C	utr-5	3/1980	1/1596	6.3E-01	0.41	4.0E-01	0.38	1/904	0/622	1	0.73	1	0.45
IL1F10	rs199770962	2:113831957	G	T	p.L28L	3/1980	1/1596	6.3E-01	0.41	4.0E-01	0.38	1/904	0/622	1	0.73	1	0.45
IL1R2	.	2:102642575	A	G	p.E297G	3/1980	1/1596	6.3E-01	0.41	4.0E-01	0.38	1/904	0/622	1	0.73	1	0.45
IL23R	rs545757118	1:67724146	G	A	intron	3/1980	1/1596	6.3E-01	0.41	4.0E-01	0.38	1/904	0/622	1	0.73	1	0.45
IL10RA	.	11:117857170	C	A	utr-5	3/1968	1/1574	6.3E-01	0.42	4.1E-01	0.38	0/896	1/612	5.6E-01	0.31	1	1.07
IL1F10	rs4849149	2:113830251	C	T	intron	33/1980	21/1596	4.1E-01	0.79	4.1E-01	0.79	10/904	8/622	3.2E-01	0.66	5.8E-01	0.77
IL32	rs370226158	16:3117982	C	A	spliceSite	2/1980	3/1596	6.6E-01	1.86	4.1E-01	2.13	3/904	0/622	1.8E-01	3.29	1	0.64

IL1RAP1	X:104728382	A	G	spliceSite	6/1980	2/1596	3.1E-01	0.41	4.1E-01	0.58	2/904	0/622	1	0.73	3.5E-01	0.24	
IL13RA1	rs185192545	X:117925970	G	A	utr-3	4/1878	1/1572	3.8E-01	0.30	4.2E-01	0.46	1/892	0/610	1	0.53	5.8E-01	0.34
IL1RL2	.	2:102808456	T	C	p.I122T	2/1980	4/1596	4.2E-01	2.48	4.2E-01	2.02	3/904	1/622	1.8E-01	3.29	5.6E-01	1.59
IL10	rs3024496	1:206941864	A	G	utr-3	97/1966	92/1596	2.9E-01	1.18	4.2E-01	1.13	50/904	40/622	5.2E-01	1.13	1.5E-01	1.32
IL15RA	rs3136614	10:6005674	G	A	intron	1926/1980	1545/1596	4.3E-01	0.85	4.3E-01	0.85	872/904	606/622	2.4E-01	0.76	1	1.06
IL13RA1	rs144170222	X:117907882	C	T	p.L350L	84/1980	56/1596	3.0E-01	0.82	4.3E-01	0.90	29/904	25/622	2.1E-01	0.75	9.1E-01	0.95
IL36RN	rs148755083	2:113818520	T	C	intron	24/1980	24/1596	4.7E-01	1.24	4.3E-01	1.26	16/904	7/622	2.3E-01	1.47	1	0.93
IL1F10	rs3811058	2:113831945	T	C	p.D24D	1032/1980	853/1596	4.4E-01	1.05	4.3E-01	1.05	489/904	327/622	3.3E-01	1.08	8.5E-01	1.02
IL13RA2	rs184714863	X:114249413	A	G	intron	7/1148	3/1066	3.5E-01	0.46	4.4E-01	0.65	0/612	3/410	1.0E-01	0.12	7.3E-01	1.20
IL16	rs201457933	15:81592420	G	C	p.G217A	38/1980	37/1596	4.1E-01	1.21	4.4E-01	1.20	12/904	23/622	2.9E-01	0.69	1.5E-02	1.96
IL22RA1	rs34967816	1:24447943	G	A	p.V359V	9/1980	10/1596	5.0E-01	1.38	4.5E-01	1.42	9/904	1/622	1.2E-01	2.20	4.7E-01	0.35
IL16	rs11073001	15:81592802	A	G	p.T344M	377/1980	291/1596	5.5E-01	0.95	4.5E-01	0.94	172/904	107/622	1	1.00	3.2E-01	0.88
IL17F	rs140679432	6:52109275	A	G	utr-5	8/1980	10/1596	3.6E-01	1.55	4.6E-01	1.43	9/904	1/622	6.7E-02	2.48	7.0E-01	0.40
IL10RA	rs2229113	11:117869670	A	G	p.R351G	1965/1978	1589/1596	5.0E-01	1.50	4.6E-01	1.42	899/904	620/622	1	1.19	5.4E-01	2.05
IL1RAP	rs34698427	3:190366144	T	C	p.L455L	103/1980	94/1596	3.8E-01	1.14	4.6E-01	1.11	55/904	37/622	3.3E-01	1.18	4.8E-01	1.15
IL6R	rs2228145	1:154426970	A	C	p.D358A	621/1980	482/1596	4.7E-01	0.95	4.7E-01	0.95	268/904	197/622	3.6E-01	0.92	8.8E-01	1.01
IL16	rs4238526	15:81600995	A	G	p.L584L	1917/1980	1555/1596	3.2E-01	1.25	4.7E-01	1.16	881/904	605/622	4.1E-01	1.26	6.9E-01	1.17
IL10	rs201661909	1:206941979	T	C	utr-3	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	2/904	0/622	2.3E-01	4.39	1	1.06
IL17RB	rs201029803	3:53894254	C	T	p.H315H	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	0/904	1/622	1	0.73	4.2E-01	3.19
IL18R1	.	2:102992456	G	A	p.V186V	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	1/904	1/622	5.3E-01	2.19	4.2E-01	3.19
IL1R2	rs201321487	2:102632492	C	T	p.D164D	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	2/904	0/622	2.3E-01	4.39	1	1.06
IL1RL1	.	2:102968105	C	T	p.A465A	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	0/904	2/622	1	0.73	1.4E-01	6.38
IL23R	.	1:67685307	C	T	p.Y283Y	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	1/904	1/622	5.3E-01	2.19	4.2E-01	3.19
IL4R	.	16:27375107	G	A	p.V812M	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	1/904	0/622	5.3E-01	2.19	1	1.06
IL16	rs200428853	15:81592801	C	T	p.T344I	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	2/904	0/622	2.3E-01	4.39	1	1.06
IL4R	rs1805013	16:27373980	C	T	p.S436L	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	0/904	2/622	1	0.73	1.4E-01	6.38
IL4R	rs1805016	16:27374927	T	G	p.S752A	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	0/904	2/622	1	0.73	1.4E-01	6.38
IL17F	.	6:52103495	A	G	intron	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	0/904	2/622	1	0.73	1.4E-01	6.38
IL1RL2	rs200727039	2:102828516	C	T	intron	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	1/904	1/622	5.3E-01	2.19	4.2E-01	3.19
IL3	.	5:131396654	C	A	intron	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	0/904	2/622	1	0.73	1.4E-01	6.38
IL36RN	.	2:113818570	G	T	intron	1/1980	2/1596	5.9E-01	2.48	4.7E-01	2.45	0/904	2/622	1	0.73	1.4E-01	6.38
IL22	.	12:68646453	G	A	intron	1/1978	2/1596	5.9E-01	2.48	4.7E-01	2.45	0/904	2/622	1	0.73	1.4E-01	6.38
IL22RA1	rs375622718	1:24448239	C	T	intron	1/1978	2/1596	5.9E-01	2.48	4.7E-01	2.45	1/904	1/622	5.3E-01	2.19	4.2E-01	3.18
IL6R	rs568804099	1:154406974	C	T	intron	1/1976	2/1596	5.9E-01	2.48	4.7E-01	2.45	0/904	2/622	1	0.73	1.4E-01	6.37
IL3	.	5:131396657	C	T	spliceSite	6/1980	3/1596	7.4E-01	0.62	4.7E-01	0.60	1/904	2/622	4.5E-01	0.36	1	1.06
IL16	rs564391550	15:81574897	A	G	intron	1/1972	2/1596	5.9E-01	2.47	4.7E-01	2.44	1/904	1/622	5.3E-01	2.18	4.2E-01	3.17
IL17RA	.	22:17589227	C	T	p.P373L	3/1978	1/1596	6.3E-01	0.41	4.7E-01	0.43	1/904	0/622	1	0.73	1	0.45
IL1RN	rs45526933	2:113875513	G	A	utr-5	3/1980	1/1596	6.3E-01	0.41	4.7E-01	0.43	1/904	0/622	1	0.73	1	0.45
IL10RA	rs138148977	11:117864053	C	T	p.D155D	3/1980	1/1596	6.3E-01	0.41	4.7E-01	0.43	0/904	1/622	5.6E-01	0.31	1	1.06
IL12RB	rs146978336	19:18194264	C	T	p.P34P	3/1980	1/1596	6.3E-01	0.41	4.7E-01	0.43	1/904	0/622	1	0.73	1	0.45
IL1R1	rs35381810	2:102791184	A	T	p.I377L	3/1980	1/1596	6.3E-01	0.41	4.7E-01	0.43	0/904	1/622	5.6E-01	0.31	1	1.06
IL18RA1	rs141511279	2:103040617	A	G	intron	44/1980	41/1596	5.1E-01	1.16	4.7E-01	1.17	28/904	12/622	2.0E-01	1.41	7.5E-01	0.87
IL17F	.	6:52101637	G	A	utr-3	4/1972	5/1596	5.3E-01	1.55	4.8E-01	1.61	4/904	1/622	2.7E-01	2.19	1	0.79
IL2RA	rs2228149	10:6063508	G	A	p.H172H	65/1980	45/1596	4.4E-01	0.85	4.8E-01	0.87	21/904	23/622	1.9E-01	0.70	6.1E-01	1.13
IL4R	rs200110537	16:27373861	G	A	p.Q396Q	2/1980	3/1596	6.6E-01	1.86	4.9E-01	1.90	0/904	2/622	1	0.44	2.4E-01	3.19
IL15RA	rs142602826	10:5998405	G	A	p.T210M	2/1980	3/1596	6.6E-01	1.86	4.9E-01	1.90	2/904	1/622	5.9E-01	2.19	5.6E-01	1.59
IL22RA1	rs199595121	1:24465170	C	G	p.Q26H	2/1980	3/1596	6.6E-01	1.86	4.9E-01	1.90	1/904	2/622	1	1.10	2.4E-01	3.19
IL1RL2	.	2:102842348	T	A	intron	2/1980	3/1596	6.6E-01	1.86	4.9E-01	1.90	1/904	1/622	1	1.10	5.6E-01	1.59
IL22RA1	rs10903022	1:24465113	C	T	p.P45P	1463/1980	1193/1596	5.6E-01	1.05	4.9E-01	1.06	676/904	468/622	6.5E-01	1.05	5.3E-01	1.07
IL12B	rs201512006	5:158743719	C	T	p.E321K	2/1978	3/1596	6.6E-01	1.86	4.9E-01	1.90	1/904	2/622	1	1.09	2.4E-01	3.19
IL18RA1	rs11465702	2:103057892	A	G	intron	37/1980	26/1596	6.1E-01	0.87	5.0E-01	0.84	15/904	8/622	7.6E-01	0.89	3.8E-01	0.68
IL7	.	8:79717068	A	G	intron	7/1978	3/1596	5.3E-01	0.53	5.0E-01	0.63	1/904	2/622	4.5E-01	0.31	1	0.91
IL23R	rs76418789	1:67648596	G	A	p.G149R	78/1980	74/1596	3.2E-01	1.19	5.0E-01	1.12	41/904	30/622	4.8E-01	1.16	3.6E-01	1.24
IL10RB	rs182073431	21:34640780	C	T	p.A44V	14/1980	8/1596	5.2E-01	0.71	5.2E-01	0.75	5/904	3/622	8.1E-01	0.78	7.8E-01	0.68

IL4	rs200256232	5:132009785	C	T	p.L15L	5/1980	6/1596	5.5E-01	1.49	5.2E-01	1.48	2/904	4/622	1	0.88	2.3E-01	2.56
IL10	rs1518111	1:206944645	T	C	intron	597/1980	502/1596	4.0E-01	1.06	5.3E-01	1.05	282/904	199/622	5.7E-01	1.05	4.0E-01	1.09
IL12RB1	rs147215816	19:18191780	C	T	p.A91T	70/1980	49/1596	4.5E-01	0.86	5.3E-01	0.89	29/904	15/622	7.4E-01	0.90	2.0E-01	0.67
IL5RA	rs147741728	3:3137076	G	C	p.L254L	48/1980	44/1596	6.0E-01	1.14	5.3E-01	1.14	22/904	18/622	1	1.00	5.6E-01	1.20
IL10RA	rs41404644	11:117859067	C	T	intron	66/1980	48/1596	6.3E-01	0.90	5.4E-01	0.89	26/904	21/622	5.7E-01	0.86	1	1.01
IL12RB1	rs200203598	19:18184379	G	A	p.S244L	4/1978	5/1596	5.2E-01	1.55	5.4E-01	1.52	3/904	2/622	6.8E-01	1.64	6.3E-01	1.59
IL27	.	16:28511329	A	G	intron	2/1744	1/1480	1	0.59	5.4E-01	0.48	1/836	0/586	1	1.04	1	0.59
IL24	rs1150258	1:207074905	T	C	p.Y124H	409/1980	344/1596	5.4E-01	1.06	5.4E-01	1.05	200/904	129/622	3.8E-01	1.09	9.5E-01	1.01
IL12RB2	rs201695193	1:67787428	G	T	p.D74C	5/1980	3/1596	7.4E-01	0.74	5.5E-01	0.64	3/904	0/622	7.1E-01	1.32	6.0E-01	0.29
IL23R	rs199542433	1:67705932	G	C	p.L372F	11/1980	12/1596	5.3E-01	1.36	5.5E-01	1.28	9/904	3/622	2.3E-01	1.80	1	0.87
IL23R	rs201752419	1:67705933	A	T	p.I373F	11/1980	12/1596	5.3E-01	1.36	5.5E-01	1.28	9/904	3/622	2.3E-01	1.80	1	0.87
IL8	.	4:74606318	T	C	utr-5	3/1980	1/1596	6.3E-01	0.41	5.5E-01	0.50	1/904	0/622	1	0.73	1	0.45
IL17RA	.	22:17586851	G	A	intron	3/1980	1/1596	6.3E-01	0.41	5.5E-01	0.50	1/904	0/622	1	0.73	1	0.45
IL18RA1	rs200207908	2:103053857	G	T	intron	3/1980	1/1596	6.3E-01	0.41	5.5E-01	0.50	1/904	0/622	1	0.73	1	0.45
IL16	rs146273436	15:81578090	G	A	p.T417T	4/1980	2/1596	7.0E-01	0.62	5.5E-01	0.60	0/904	2/622	3.2E-01	0.24	6.3E-01	1.59
IL16	rs1811119563	15:81584945	A	G	p.K490R	4/1980	2/1596	7.0E-01	0.62	5.5E-01	0.60	1/904	1/622	1	0.55	1	0.80
IL17RB	.	3:53880692	A	C	intron	3/1972	4/1596	7.1E-01	1.65	5.6E-01	1.57	2/904	2/622	6.5E-01	1.46	3.5E-01	2.12
IL21	rs4833837	4:123536963	G	A	p.C78C	1771/1980	1417/1596	5.5E-01	0.93	5.6E-01	0.94	803/904	549/622	6.5E-01	0.94	4.2E-01	0.89
IL32	rs117585555	16:31117675	G	C	intron	27/1980	25/1596	6.7E-01	1.15	5.7E-01	1.17	16/904	8/622	4.1E-01	1.30	1	0.94
IL12B	.	5:158745750	T	C	p.R283R	2/1980	3/1596	6.6E-01	1.86	5.7E-01	1.70	3/904	0/622	1.8E-01	3.29	1	0.64
IL18RA1	.	2:103039698	A	C	utr-5	1/1980	2/1596	5.9E-01	2.48	5.7E-01	2.02	1/904	0/622	5.3E-01	2.19	1	1.06
IL1A	.	2:113540293	C	T	p.Q32Q	1/1980	2/1596	5.9E-01	2.48	5.7E-01	2.02	0/904	2/622	1	0.73	1.4E-01	6.38
IL1B	.	2:113587941	G	A	p.S269S	1/1980	2/1596	5.9E-01	2.48	5.7E-01	2.02	0/904	2/622	1	0.73	1.4E-01	6.38
IL6R	.	1:154408522	G	A	p.Q295Q	1/1980	2/1596	5.9E-01	2.48	5.7E-01	2.02	2/904	0/622	2.3E-01	4.39	1	1.06
IL1RAP	rs200352562	3:190326957	T	C	p.I175T	1/1980	2/1596	5.9E-01	2.48	5.7E-01	2.02	1/904	1/622	5.3E-01	2.19	4.2E-01	3.19
IL1R1	rs200487555	2:102774160	C	T	intron	1/1980	2/1596	5.9E-01	2.48	5.7E-01	2.02	2/904	0/622	2.3E-01	4.39	1	1.06
IL1R2	.	2:102640971	C	T	intron	1/1980	2/1596	5.9E-01	2.48	5.7E-01	2.02	1/904	1/622	5.3E-01	2.19	4.2E-01	3.19
IL22RA1	.	1:244636064	C	A	intron	1/1980	2/1596	5.9E-01	2.48	5.7E-01	2.02	0/904	2/622	1	0.73	1.4E-01	6.38
IL17RA	.	22:17590123	G	A	p.A672T	1/1976	2/1596	5.9E-01	2.48	5.7E-01	2.01	1/904	1/622	5.3E-01	2.19	4.2E-01	3.18
IL23R	rs7518660	1:67685443	G	A	intron	496/1980	383/1596	4.8E-01	0.94	5.7E-01	0.96	226/904	139/622	1	1.00	1.8E-01	0.86
IL27	rs192940377	16:28510999	C	A	p.G235G	18/1976	18/1596	6.1E-01	1.24	5.7E-01	1.21	12/904	4/622	3.3E-01	1.46	6.2E-01	0.70
IL10RB	rs182875134	21:34660525	G	A	p.A255T	9/1980	5/1596	6.0E-01	0.69	5.7E-01	0.73	2/904	3/622	5.2E-01	0.49	1	1.06
IL12B	.	5:158743720	G	A	p.S320S	2/1978	1/1596	1	0.62	5.7E-01	0.50	0/904	1/622	1	0.44	5.6E-01	1.59
IL7	rs560545871	8:79717189	C	G	utr-5	2/1980	1/1596	1	0.62	5.7E-01	0.50	1/904	0/622	1	1.10	1	0.64
IL4	.	5:132018213	G	A	p.T132T	2/1980	1/1596	1	0.62	5.7E-01	0.50	0/904	1/622	1	0.44	5.6E-01	1.59
IL17F	.	6:52101763	G	A	p.T153I	2/1980	1/1596	1	0.62	5.7E-01	0.50	0/904	1/622	1	0.44	5.6E-01	1.59
IL2RA	rs11256354	10:6061407	T	C	p.T237T	29/1980	27/1596	5.9E-01	1.16	5.8E-01	1.16	9/904	15/622	3.8E-01	0.68	1.1E-01	1.66
IL13	rs146770163	5:131995114	C	T	p.P60L	9/1980	6/1594	8.0E-01	0.83	5.8E-01	0.74	3/904	3/622	7.6E-01	0.73	1	1.06
IL13RA2	.	X:114248277	G	A	intron	1/1976	2/1596	5.9E-01	2.48	5.8E-01	1.74	2/904	0/622	2.3E-01	4.38	1	1.06
IL12RB1	rs11086087	19:18191664	C	G	p.V129V	554/1978	462/1596	5.5E-01	1.05	5.8E-01	1.04	249/904	192/622	8.2E-01	0.98	1.7E-01	1.15
IL1RAP	rs202132030	3:190282138	C	G	p.A20A	6/1980	3/1596	7.4E-01	0.62	5.8E-01	0.67	1/904	0/622	4.5E-01	0.36	3.5E-01	0.24
IL1RAP	rs34879831	3:190363594	G	A	p.K436K	32/1980	29/1596	7.0E-01	1.13	5.8E-01	1.15	16/904	11/622	7.6E-01	1.10	8.6E-01	1.10
IL10RA	rs3135932	11:117864063	A	G	p.S159G	5/1980	5/1596	7.6E-01	1.24	5.9E-01	1.41	3/904	2/622	7.1E-01	1.32	6.7E-01	1.27
IL7	rs200683891	8:79710343	A	G	p.Y37Y	43/1980	29/1596	4.7E-01	0.83	6.0E-01	0.88	18/904	10/622	8.9E-01	0.92	5.1E-01	0.74
IL17RB	rs541839131	3:53880584	G	C	utr-5	4/1972	5/1596	5.3E-01	1.55	6.0E-01	1.42	2/904	3/622	1	1.09	3.7E-01	2.38
IL18R1	rs200648833	2:102992327	C	T	intron	5/1980	3/1596	7.4E-01	0.74	6.1E-01	0.69	2/904	1/622	1	0.88	1	0.64
IL25	rs375467367	14:23844930	C	T	p.D109D	13/1980	9/1596	8.3E-01	0.86	6.2E-01	0.80	9/904	0/622	3.6E-01	1.52	4.7E-02	0.12
IL17RA	rs41372049	22:17589152	T	G	intron	7/1978	4/1596	7.6E-01	0.71	6.2E-01	0.73	1/904	2/622	4.5E-01	0.31	1	0.91
IL11RA	rs150157295	9:34658610	C	T	p.P247L	4/1980	4/1596	1	1.24	6.2E-01	1.43	4/904	0/622	2.7E-01	2.20	5.8E-01	0.35
IL12RB2	rs190952170	1:67804295	C	T	intron	7/1980	4/1596	7.6E-01	0.71	6.2E-01	0.73	2/904	2/622	7.3E-01	0.62	1	0.91
IL22RA1	rs199753143	1:24465118	C	T	p.G44R	3/1980	4/1596	7.1E-01	1.66	6.2E-01	1.46	4/904	0/622	2.2E-01	2.93	1	0.45
IL10RB	rs45565831	21:34638748	C	T	utr-5	2/1966	3/1570	6.6E-01	1.88	6.2E-01	1.47	2/890	1/612	5.9E-01	2.21	5.6E-01	1.61
IL11RA	rs184981667	9:34659820	G	A	p.R292Q	4/1980	2/1596	7.0E-01	0.62	6.3E-01	0.65	1/904	1/622	1	0.55	1	0.80
IL11RA	rs189071812	9:34656815	C	T	p.L81L	5/1980	6/1596	5.5E-01	1.49	6.3E-01	1.34	4/904	2/622	4.7E-01	1.76	6.7E-01	1.27

IL15RA	rs77226427	10:6002518	G	A	p.S132L	43/1980	39/1596	6.5E-01	1.13	6.4E-01	1.11	29/904	8/622	1.2E-01	1.49	1.9E-01	0.59
IL4	.	5:132015485	G	A	p.R88H	6/1980	3/1596	7.4E-01	0.62	6.4E-01	0.72	2/904	0/622	1	0.73	3.5E-01	0.24
IL1R2	rs147914094	2:102641092	C	T	p.S283S	3/1980	3/1596	1	1.24	6.5E-01	1.46	2/904	0/622	6.5E-01	1.46	1	0.45
IL3	rs377356833	5:131398404	C	T	p.R127W	3/1980	3/1596	1	1.24	6.5E-01	1.46	1/904	2/622	1	0.73	3.4E-01	2.13
IL13RA2 rs17095003	X:114239897	C	T	intron	4/1980	2/1596	7.0E-01	0.62	6.5E-01	0.74	0/904	0/622	3.2E-01	0.24	5.8E-01	0.35	
IL15RA	rs528238821	10:6001749	C	A	p.G195V	2/1980	3/1596	6.6E-01	1.86	6.5E-01	1.51	0/904	3/622	1	0.44	9.2E-02	4.79
IL2RB	rs188869923	22:37524600	C	T	p.G398R	7/1980	7/1596	7.9E-01	1.24	6.5E-01	1.28	5/904	2/622	5.3E-01	1.57	1	0.91
IL3	rs40401	5:131396478	C	T	p.P27S	1036/1980	819/1596	5.7E-01	0.96	6.5E-01	0.97	457/904	329/622	4.0E-01	0.93	8.2E-01	1.02
IL12B	rs55661460	5:158747334	C	T	p.S226N	27/1980	24/1596	7.8E-01	1.10	6.5E-01	1.14	9/904	13/622	4.7E-01	0.73	1.9E-01	1.54
IL12RB1	.	19:18193121	G	A	intron	2/1968	1/1596	1	0.62	6.7E-01	0.59	0/904	1/622	1	0.43	5.6E-01	1.58
IL2RB	.	22:37524455	C	A	p.G446V	2/1970	1/1596	1	0.62	6.7E-01	0.59	1/904	0/622	1	1.09	1	0.63
IL1RL2	.	2:102803497	C	T	utr-5	2/1980	2/1596	1	1.24	6.7E-01	1.53	2/904	0/622	5.9E-01	2.19	1	0.64
IL23R	rs539497366	1:67648538	T	A	p.D129E	9/1980	6/1596	8.0E-01	0.83	6.7E-01	0.80	2/904	4/622	5.2E-01	0.49	5.2E-01	1.42
IL4	rs2243290	5:132018169	C	A	intron	1608/1980	1307/1596	6.3E-01	1.05	6.7E-01	1.04	742/904	504/622	6.1E-01	1.06	9.1E-01	0.99
IL34	rs373785976	16:70693495	G	A	intron	2/1976	1/1596	1	0.62	6.8E-01	0.60	1/904	0/622	1	1.09	1	0.63
IL1F10	.	2:113832335	C	T	p.R52C	2/1978	1/1596	1	0.62	6.8E-01	0.60	1/904	0/622	1	1.09	1	0.64
IL34	.	16:70688388	G	A	intron	2/1978	1/1596	1	0.62	6.8E-01	0.60	0/904	1/622	1	0.44	5.6E-01	1.59
IL24	rs373839792	1:207073616	C	A	intron	2/1978	1/1596	1	0.62	6.8E-01	0.60	1/904	0/622	1	1.09	1	0.64
IL11RA	.	9:34658640	G	A	p.R257H	2/1980	1/1596	1	0.62	6.8E-01	0.60	0/904	1/622	1	0.44	5.6E-01	1.59
IL4R	.	16:27356257	G	A	p.V93M	2/1980	1/1596	1	0.62	6.8E-01	0.60	0/904	1/622	1	0.44	5.6E-01	1.59
IL32	.	16:3117452	G	A	intron	2/1980	1/1596	1	0.62	6.8E-01	0.60	1/904	0/622	1	1.10	1	0.64
IL2RB	.	22:37532468	A	C	intron	46/1970	33/1588	6.5E-01	0.89	6.8E-01	0.91	18/900	11/618	6.8E-01	0.85	5.3E-01	0.76
IL18RA1 rs117459386	2:103040638	C	T	intron	5/1980	3/1596	7.4E-01	0.74	6.8E-01	0.74	2/904	1/622	1	0.88	1	0.64	
IL1RL2	rs201586085	2:102851329	C	A	intron	6/1980	6/1596	7.8E-01	1.24	6.8E-01	1.27	1/904	4/622	4.5E-01	0.36	2.6E-01	2.13
IL13RA2 rs10521698	X:114249423	G	T	intron	3/1060	2/1002	1	0.70	6.9E-01	0.76	0/570	0/394	5.6E-01	0.26	5.7E-01	0.38	
IL17A	rs543095230	6:52053804	C	T	intron	4/1980	4/1596	1	1.24	6.9E-01	1.33	3/904	1/622	6.8E-01	1.64	1	0.80
IL5RA	rs2290611	3:3116438	G	A	intron	98/1980	76/1596	8.1E-01	0.96	6.9E-01	0.94	47/904	26/622	7.8E-01	1.05	5.2E-01	0.84
IL13RA2 rs369026128	X:114238632	A	G	utr-3	1/1976	1/1596	1	1.24	6.9E-01	1.75	1/904	0/622	5.3E-01	2.19	1	1.06	
IL4R	.	16:27367145	C	T	p.F229F	1/1980	1/1596	1	1.24	6.9E-01	1.75	1/904	0/622	5.3E-01	2.19	1	1.06
IL13RA2 rs201134078	X:114250355	C	T	p.D42N	1/1980	1/1596	1	1.24	6.9E-01	1.75	1/904	0/622	5.3E-01	2.19	1	1.06	
IL1R1	rs142706469	2:102792839	G	A	p.V444I	1/1980	1/1596	1	1.24	6.9E-01	1.75	0/904	1/622	1	0.73	4.2E-01	3.19
IL34	rs200158701	16:70680854	C	T	p.P2S	1/1978	1/1596	1	1.24	6.9E-01	1.75	0/904	1/622	1	0.73	4.2E-01	3.18
IL6R	.	1:154407116	G	A	p.V194I	1/1980	1/1596	1	1.24	6.9E-01	1.75	1/904	0/622	5.3E-01	2.19	1	1.06
IL18R1	.	2:103001294	C	T	intron	1/1980	1/1596	1	1.24	6.9E-01	1.75	0/904	1/622	1	0.73	4.2E-01	3.19
IL22RA1	.	1:24463828	G	A	intron	1/1980	1/1596	1	1.24	6.9E-01	1.75	0/904	1/622	1	0.73	4.2E-01	3.19
IL32	.	16:3117499	G	T	intron	1/1980	1/1596	1	1.24	6.9E-01	1.75	0/904	1/622	1	0.73	4.2E-01	3.19
IL4R	rs1805010	16:27356203	A	G	p.I75V	975/1978	801/1596	6.1E-01	1.04	7.0E-01	1.03	448/904	319/622	9.0E-01	1.01	4.1E-01	1.08
IL2RB	rs228942	22:37524619	G	T	p.D391E	510/1980	399/1596	6.2E-01	0.96	7.0E-01	0.97	223/904	157/622	5.5E-01	0.94	8.3E-01	0.97
IL32	rs539684284	16:3117477	G	C	intron	11/1980	7/1596	8.1E-01	0.79	7.1E-01	0.84	3/904	3/622	5.7E-01	0.60	1	0.87
IL16	rs200434957	15:81593713	G	C	p.G359R	12/1980	10/1596	1	1.03	7.3E-01	1.16	5/904	5/622	1	0.91	5.7E-01	1.33
IL36RN rs545673991	2:113818451	G	T	p.V18L	3/1980	3/1596	1	1.24	7.3E-01	1.33	2/904	1/622	6.5E-01	1.46	1	1.06	
IL1RL1 rs75320001	2:102958715	G	A	p.G215R	9/1980	9/1596	6.4E-01	1.24	7.4E-01	1.17	4/904	4/622	1	0.97	5.2E-01	1.42	
IL17RA rs554211497	22:17589490	C	T	p.R461W	7/1980	4/1596	7.6E-01	0.71	7.4E-01	0.81	2/904	2/622	7.3E-01	0.62	1	0.91	
IL16	rs548090481	15:81600000	A	G	p.R602R	6/1980	6/1596	7.8E-01	1.24	7.4E-01	1.21	1/904	4/622	4.5E-01	0.36	2.6E-01	2.13
IL12RB2 rs2229546	1:67861520	C	A	p.P779P	696/1980	576/1596	5.7E-01	1.04	7.4E-01	1.02	323/904	226/622	7.7E-01	1.03	6.0E-01	1.05	
IL2RB	rs143704470	22:37524496	G	A	p.P432P	3/1974	2/1596	1	0.82	7.4E-01	0.74	2/904	0/622	6.5E-01	1.46	1	0.45
IL11RA	rs377108939	9:34658519	C	T	p.R217C	5/1980	3/1596	7.4E-01	0.74	7.5E-01	0.79	2/904	1/622	1	0.88	1	0.64
IL4R	rs3024570	16:27357784	G	A	spliceSite	3/1980	2/1596	1	0.83	7.5E-01	0.74	0/904	2/622	5.6E-01	0.31	3.4E-01	2.13
IL17F	rs763780	6:52101739	T	C	p.H161R	318/1980	268/1596	5.9E-01	1.05	7.5E-01	1.03	149/904	108/622	7.9E-01	1.03	4.6E-01	1.10
IL17RB	rs568201210	3:53890858	T	C	intron	4/1980	4/1596	1	1.24	7.6E-01	1.24	1/904	3/622	1	0.55	3.7E-01	2.39
IL4R	.	16:27356124	C	T	intron	4/1976	4/1596	1	1.24	7.7E-01	1.24	1/904	2/622	1	0.55	6.3E-01	1.59
IL2RB	rs3218305	22:37531521	G	C	intron	324/1974	269/1596	7.5E-01	1.03	7.7E-01	1.03	156/904	103/622	5.9E-01	1.06	9.5E-01	1.01
IL17RA	rs17205308	22:17582877	G	T	intron	163/1980	136/1596	7.6E-01	1.04	7.7E-01	1.04	77/904	56/622	8.3E-01	1.04	5.6E-01	1.10
IL13RA2	.	X:114248768	A	T	intron	4/1750	5/1534	7.4E-01	1.43	7.7E-01	1.17	2/868	3/598	1	1.01	3.8E-01	2.20

IL1B	rs1143634	2:113590390	G	A	p.F105F	33/1980	28/1596	9.0E-01	1.05	7.7E-01	1.08	21/904	7/622	2.4E-01	1.40	4.5E-01	0.67
IL4R	.	16:27375178	G	A	utr-3	2/1980	2/1596	1	1.24	7.8E-01	1.33	1/904	0/622	1	1.10	1	0.64
IL1R2	rs558760235	2:102632463	C	T	p.L155L	2/1980	2/1596	1	1.24	7.8E-01	1.33	2/904	0/622	5.9E-01	2.19	1	0.64
IL10RA	rs375201461	11:117870312	C	A	p.L565M	2/1980	2/1596	1	1.24	7.8E-01	1.33	2/904	0/622	5.9E-01	2.19	1	0.64
IL12A	.	3:159713222	A	G	p.Q213R	2/1980	2/1596	1	1.24	7.8E-01	1.33	1/904	1/622	1	1.10	5.6E-01	1.59
IL3	rs370114748	5:131396415	G	A	p.V6I	2/1980	2/1596	1	1.24	7.8E-01	1.33	2/904	0/622	5.9E-01	2.19	1	0.64
IL16	.	15:81589250	C	T	intron	2/1980	2/1596	1	1.24	7.8E-01	1.33	0/904	2/622	1	0.44	2.4E-01	3.19
IL2RB	.	22:37540207	C	T	p.A2A	2/1978	2/1596	1	1.24	7.8E-01	1.33	1/904	1/622	1	1.09	5.6E-01	1.59
IL22RA1	rs5525334149	1:24448150	G	A	p.S290S	4/1980	3/1596	1	0.93	7.9E-01	0.81	2/904	1/622	1	1.10	1	0.80
IL27	.	16:28513305	G	A	p.R152C	2/1976	1/1596	1	0.62	7.9E-01	0.72	0/904	1/622	1	0.44	5.6E-01	1.59
IL1RL1	.	2:102954715	G	A	utr-5	2/1980	1/1596	1	0.62	7.9E-01	0.72	1/904	0/622	1	1.10	1	0.64
IL26	.	12:68595610	G	C	utr-3	2/1980	1/1596	1	0.62	7.9E-01	0.72	0/904	0/622	1	0.44	1	0.64
IL16	.	15:81595907	T	C	p.H411H	2/1980	1/1596	1	0.62	7.9E-01	0.72	0/904	1/622	1	0.44	5.6E-01	1.59
IL2	rs529865285	4:123372915	G	A	p.L152L	2/1980	1/1596	1	0.62	7.9E-01	0.72	1/904	0/622	1	1.10	1	0.64
IL1RL1	rs1041973	2:102955468	C	A	p.A78E	277/1980	215/1596	6.6E-01	0.96	7.9E-01	0.97	123/904	84/622	8.2E-01	0.97	7.9E-01	0.96
IL1RL1	rs200221077	2:102956598	T	C	p.Y105H	17/1980	14/1596	1	1.02	7.9E-01	1.10	6/904	7/622	6.6E-01	0.77	6.3E-01	1.31
IL12RB1	rs150931525	19:18188280	C	A	intron	38/1980	29/1596	9.0E-01	0.95	8.0E-01	0.94	17/904	9/622	1	0.98	5.0E-01	0.75
IL9	rs182132242	5:135229769	G	C	p.Y85*	16/1980	14/1596	8.6E-01	1.09	8.0E-01	1.10	7/904	7/622	1	0.96	4.6E-01	1.40
IL9	rs151067523	5:135229738	C	T	p.V96I	16/1980	14/1596	8.6E-01	1.09	8.0E-01	1.10	7/904	7/622	1	0.96	4.6E-01	1.40
IL15	rs2857261	4:142640637	A	G	intron	1050/1980	834/1596	6.6E-01	0.97	8.1E-01	0.98	464/904	335/622	4.0E-01	0.93	7.5E-01	1.03
IL36RN	rs77864207	2:113819754	G	A	p.V57I	8/1974	7/1596	1	1.08	8.1E-01	1.13	6/904	1/622	3.9E-01	1.64	7.0E-01	0.40
IL1RAP1	rs376474675	X:104992963	T	C	p.Y353Y	616/1980	506/1596	7.2E-01	1.03	8.1E-01	1.01	285/904	202/622	8.3E-01	1.02	5.2E-01	1.06
IL23R	rs7539625	1:67672765	G	A	intron	1023/1980	837/1596	6.6E-01	1.03	8.1E-01	1.02	460/904	342/622	7.2E-01	0.97	1.5E-01	1.14
IL34	rs189509142	16:706906060	G	T	intron	3/1978	3/1596	1	1.24	8.2E-01	1.21	1/904	2/622	1	0.73	3.4E-01	2.12
IL1RAP	rs4687160	3:190341241	C	A	intron	1626/1980	1306/1596	8.3E-01	0.98	8.3E-01	0.98	743/904	505/622	1	1.00	5.9E-01	0.94
IL24	rs3790615	1:207071249	G	A	intron	52/1980	42/1596	1	1.00	8.4E-01	1.04	20/904	22/622	6.1E-01	0.84	2.7E-01	1.36
IL15RA	rs377470890	10:6008165	C	T	p.V76I	4/1980	4/1596	1	1.24	8.4E-01	1.16	4/904	0/622	2.7E-01	2.20	5.8E-01	0.35
IL10RA	.	11:117869902	C	T	p.P428L	3/1980	2/1596	1	0.83	8.4E-01	0.83	1/904	1/622	1	0.73	1	1.06
IL12RB1	rs11575926	19:18188408	C	T	p.R156H	3/1980	2/1596	1	0.83	8.4E-01	0.83	2/904	0/622	6.5E-01	1.46	1	0.45
IL17RB	.	3:53890832	T	G	intron	3/1980	2/1596	1	0.83	8.4E-01	0.83	1/904	1/622	1	0.73	1	1.06
IL4R	.	16:27372027	G	A	intron	3/1980	2/1596	1	0.83	8.4E-01	0.83	0/904	2/622	5.6E-01	0.31	3.4E-01	2.13
IL6R	rs4845374	1:154426947	T	A	intron	263/1980	216/1596	8.4E-01	1.02	8.4E-01	1.02	111/904	99/622	4.7E-01	0.91	1.1E-01	1.24
IL12RB2	.	1:67845790	G	A	p.R613R	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL19	rs144004857	1:206972275	G	A	p.A12A	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL5RA	rs146961931	3:3133990	G	A	p.Y304Y	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL11RA	rs200169943	9:34659754	A	G	spliceSite	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL1RL1	.	2:102954786	G	C	spliceSite	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL10RA	.	11:117864090	G	A	p.E168K	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL12B	rs565345523	5:158747505	G	A	p.T169M	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	0/622	1	0.73	1	1.06
IL12RB2	rs368112959	1:67792426	G	C	p.E125Q	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL1A	rs553259442	2:113537166	C	G	p.E133Q	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL1B	.	2:113588904	C	A	p.V188L	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL1R2	.	2:102644832	A	G	p.D392G	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL1RL1	.	2:102955332	A	C	p.I33L	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL1RL1	.	2:102957160	C	T	p.A161V	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL1RL1	rs142878092	2:102957161	G	A	p.A161V	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL1RL2	rs150558280	2:102836357	C	T	p.R291W	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL2	.	4:123377585	A	G	p.M4T	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL22RA1	.	1:24448073	G	C	p.P316R	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL3	.	5:131396407	G	A	p.R3H	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL4R	rs568385218	16:27357928	G	A	p.D168N	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL4R	.	16:27374060	C	A	p.Q463K	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL7	.	8:79650746	G	A	p.T118I	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL17RA	.	22:17581421	G	A	intron	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06

IL17RB	rs2232341	3:53891594	G	T	intron	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL18R1	.	2:103001288	A	G	intron	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL1B	rs561202371	2:113593078	C	T	intron	1/1980	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL1RAP	rs6764286	3:190282186	C	T	intron	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL23A	rs117084460	12:56733637	G	A	intron	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL27	.	16:28518028	C	A	intron	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL2RB	.	22:37538434	C	T	intron	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL32	.	16:3115610	C	T	intron	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL32	rs55756224	16:3117426	C	T	intron	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.19
IL6R	.	1:154403129	C	T	intron	1/1980	1/1596	1	1.24	8.4E-01	1.33	0/904	0/622	1	0.73	1	1.06
IL32	.	16:3119391	G	A	utr-3	1/1978	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL11RA	rs571523950	9:34655660	C	T	p.A53A	1/1978	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL17RA	.	22:17590314	G	A	p.A735A	1/1978	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL2RB	.	22:37528475	G	A	p.D284D	1/1978	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL1F10	.	2:113832430	G	A	spliceSite	1/1978	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL17RB	rs2232338	3:53889439	T	C	intron	1/1978	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL10	rs537430561	1:206942116	G	C	intron	1/1978	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL6R	.	1:154407479	G	A	p.P218P	1/1976	1/1596	1	1.24	8.4E-01	1.33	1/904	0/622	5.3E-01	2.19	1	1.06
IL36RN	.	2:113819688	C	T	intron	1/1976	1/1596	1	1.24	8.4E-01	1.33	0/904	1/622	1	0.73	4.2E-01	3.18
IL10RB	.	21:34638746	G	T	utr-5	3/1964	2/1574	1	0.83	8.5E-01	0.84	0/892	1/614	5.6E-01	0.31	1	1.07
IL17RB	rs1025689	3:53883722	C	G	p.P42P	945/1980	755/1596	8.1E-01	0.98	8.5E-01	0.99	435/904	292/622	8.7E-01	1.02	7.5E-01	0.97
IL5	rs142865560	5:131877596	C	G	p.K104N	7/1980	6/1596	1	1.06	8.5E-01	1.11	3/904	3/622	1	0.94	7.1E-01	1.37
IL2RB	.	22:37538722	G	A	intron	4/1898	3/1576	1	0.90	8.5E-01	0.88	1/894	1/616	1	0.53	1	0.77
IL23R	rs6687620	1:67648460	T	C	intron	1974/1980	1590/1596	7.8E-01	0.81	8.7E-01	0.91	900/904	620/622	5.2E-01	0.68	1	0.94
IL1R2	rs28385688	2:102640911	C	T	intron	4/1980	3/1596	1	0.93	8.7E-01	0.88	2/904	1/622	1	1.10	1	0.80
IL1F10	rs6743376	2:113832333	C	A	p.A51D	1312/1978	1064/1596	8.6E-01	1.02	8.8E-01	1.01	604/904	410/622	8.3E-01	1.02	8.5E-01	0.98
IL9	rs569600530	5:135231461	G	A	p.S15S	5/1980	4/1596	1	0.99	8.8E-01	0.91	1/904	2/622	6.7E-01	0.44	6.7E-01	1.27
IL15	rs12510030	4:142651159	T	C	intron	1048/1980	835/1596	7.4E-01	0.98	8.9E-01	0.99	465/904	335/622	4.7E-01	0.94	7.1E-01	1.04
IL32	rs78516090	16:3118245	G	C	intron	4/1978	3/1596	1	0.93	8.9E-01	1.12	1/904	2/622	1	0.55	6.3E-01	1.59
IL4R	rs2234895	16:27357927	C	T	p.N167N	2/1980	2/1596	1	1.24	8.9E-01	1.16	0/904	2/622	1	0.44	2.4E-01	3.19
IL36RN	rs139497891	2:113819812	C	T	p.P76L	2/1980	2/1596	1	1.24	8.9E-01	1.16	1/904	0/622	1	1.10	1	0.64
IL15	rs369940493	4:142653878	C	A	intron	2/1980	2/1596	1	1.24	8.9E-01	1.16	2/904	0/622	5.9E-01	2.19	1	0.64
IL1R2	.	2:102644676	T	C	intron	2/1980	2/1596	1	1.24	8.9E-01	1.16	0/904	2/622	1	0.44	2.4E-01	3.19
IL24	rs200977694	1:207075333	T	C	intron	2/1980	2/1596	1	1.24	8.9E-01	1.16	2/904	0/622	5.9E-01	2.19	1	0.64
IL4R	.	16:27372069	G	A	intron	2/1980	2/1596	1	1.24	8.9E-01	1.16	2/904	0/622	5.9E-01	2.19	1	0.64
IL1R4P	rs6764468	3:190282197	G	A	intron	1352/1980	1085/1596	8.6E-01	0.99	8.9E-01	0.99	608/904	425/622	6.1E-01	0.95	1	1.00
IL27	rs144797498	16:28513376	C	A	p.R128L	17/1978	15/1596	8.6E-01	1.09	8.9E-01	1.05	9/904	6/622	6.8E-01	1.16	8.1E-01	1.12
IL26	rs367724685	12:68595823	G	T	p.T135N	5/1980	4/1596	1	0.99	9.0E-01	1.09	3/904	1/622	7.1E-01	1.32	1	0.64
IL18	rs61734549	11:112025712	G	A	p.T22M	3/1980	3/1596	1	1.24	9.0E-01	1.10	1/904	2/622	1	0.73	3.4E-01	2.13
IL1R4P	.	X:104961315	G	A	intron	2/1974	2/1596	1	1.24	9.1E-01	1.10	2/904	0/622	5.9E-01	2.19	1	0.63
IL23R	rs75363634	1:67648659	C	T	intron	17/1980	14/1596	1	1.02	9.1E-01	1.04	10/904	4/622	5.3E-01	1.29	8.0E-01	0.75
IL12A	rs375527576	3:159711296	A	G	intron	2/1980	1/1596	1	0.62	9.1E-01	0.87	1/904	0/622	1	1.10	1	0.64
IL15	rs2254514	4:142640538	T	C	utr-5	1972/1980	1589/1596	1	0.92	9.2E-01	0.95	897/904	622/622	2.6E-01	0.52	2.1E-01	0.537
IL4	rs2070874	5:132009710	C	T	utr-5	1599/1980	1294/1596	8.3E-01	1.02	9.2E-01	1.01	738/904	495/622	6.1E-01	1.06	5.2E-01	0.93
IL24	rs150080259	1:207076321	T	G	p.L22V	52/1980	41/1596	1	0.98	9.2E-01	1.02	20/904	21/622	6.1E-01	0.84	3.3E-01	1.30
IL2	rs2069763	4:123377482	C	A	p.L38L	870/1980	698/1596	9.2E-01	0.99	9.4E-01	0.99	408/904	261/622	5.7E-01	1.05	4.0E-01	0.92
IL23A	rs11171806	12:56733531	G	A	p.S106S	96/1978	77/1596	1	0.99	9.4E-01	1.01	42/904	32/622	8.5E-01	0.96	7.5E-01	1.06
IL36RN	rs202161658	2:113820137	G	A	p.P117P	4/1976	3/1596	1	0.93	9.5E-01	0.95	2/904	1/622	1	1.09	1	0.79
IL4R	rs574528642	16:27374166	G	A	p.R498H	4/1980	3/1596	1	0.93	9.5E-01	0.95	1/904	2/622	1	0.55	6.3E-01	1.59
IL18R1	rs1420096	2:103010912	C	T	intron	300/1980	236/1596	7.8E-01	0.97	9.5E-01	0.99	132/904	94/622	7.4E-01	0.96	1	1.00
IL17B	rs140837226	5:148756535	G	A	p.P25P	5/1976	4/1596	1	0.99	9.5E-01	0.96	3/904	1/622	7.1E-01	1.31	1	0.63
IL32	rs377020176	16:3117365	G	A	intron	9/1980	7/1596	1	0.96	9.6E-01	1.03	5/904	1/622	7.7E-01	1.22	4.7E-01	0.35
IL1R2	rs554382459	2:102642715	G	T	p.A344S	3/1980	2/1596	1	0.83	9.7E-01	1.04	1/904	1/622	1	0.73	1	1.06
IL16	.	15:81517748	C	T	p.S3L	7/1980	6/1596	1	1.06	9.7E-01	1.02	5/904	1/622	5.3E-01	1.57	6.9E-01	0.45

<i>IL1R1</i>	rs201216211	2:102785171	A	T	intron	27/1980	23/1596	8.9E-01	1.06	9.8E-01	1.01	14/904	9/622	7.4E-01	1.14	8.5E-01	1.06
<i>IL1F10</i>	rs6761276	2:113832312	T	C	p.I44T	343/1978	276/1596	1	1.00	9.8E-01	1.00	160/904	103/622	8.3E-01	1.03	6.7E-01	0.95
<i>IL11RA</i>	.	9:34652219	C	T	utr-5	8/1828	7/1482	1	1.08	9.8E-01	1.01	4/852	3/570	1	1.07	7.3E-01	1.20
<i>IL16</i>	rs75838746	15:81578189	A	G	intron	229/1980	184/1596	1	1.00	9.9E-01	1.00	115/904	60/622	3.9E-01	1.11	2.1E-01	0.82
<i>IL27</i>	rs146531211	16:28511253	G	A	intron	43/1940	34/1586	9.1E-01	0.97	9.9E-01	1.00	20/898	14/618	1	1.00	1	1.02
<i>IL13RA1</i>	rs2246663	X:117874898	T	C	intron	1978/1980	1592/1594	1	0.80	9.9E-01	0.99	902/904	620/620	5.9E-01	0.46	1	1.57
<i>IL1RAP</i>	rs34590034	3:190362220	A	T	intron	148/1980	120/1596	1	1.01	9.9E-01	1.00	70/904	45/622	8.2E-01	1.04	9.3E-01	0.97
<i>IL6R</i>	rs34099703	1:154401712	C	T	p.S42S	3/1980	3/1596	1	1.24	9.9E-01	1.01	1/904	1/622	1	0.73	1	1.06
<i>IL16</i>	rs545808485	15:81572054	G	A	p.S340S	1/1980	1/1596	1	1.24	1	1.01	0/904	1/622	1	0.73	4.2E-01	3.19
<i>IL17RA</i>	rs374537654	22:17585663	C	T	p.S298S	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL18R1</i>	.	2:103013106	A	G	p.E462E	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL1B</i>	rs368729538	2:113587983	G	A	p.G255G	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL1RN</i>	.	2:113885264	A	G	p.S21S	1/1980	1/1596	1	1.24	1	1.01	0/904	1/622	1	0.73	4.2E-01	3.19
<i>IL10RA</i>	.	11:117859208	C	T	p.A60V	1/1980	1/1596	1	1.24	1	1.01	0/904	1/622	1	0.73	4.2E-01	3.19
<i>IL10RA</i>	.	11:117869940	G	A	p.V441M	1/1980	1/1596	1	1.24	1	1.01	0/904	1/622	1	0.73	4.2E-01	3.19
<i>IL10RA</i>	.	11:117870108	T	G	p.L497V	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL10RB</i>	rs143985008	21:34640719	C	A	p.P24T	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL12A</i>	rs149384110	3:159708079	G	A	p.V82I	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL13RA1</i>	.	X:117874987	G	T	p.Q32H	2/1980	2/1596	1	1.24	1	1.00	2/904	0/622	5.9E-01	2.19	1	0.64
<i>IL15</i>	.	4:142649096	A	G	p.M67V	1/1980	1/1596	1	1.24	1	1.01	0/904	1/622	1	0.73	4.2E-01	3.19
<i>IL16</i>	rs200454423	15:81552135	G	A	p.R112Q	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL16</i>	.	15:81592474	C	G	p.P235	1/1980	1/1596	1	1.24	1	1.01	0/904	1/622	1	0.73	4.2E-01	3.19
<i>IL17A</i>	.	6:52052486	A	T	p.D38V	1/1980	1/1596	1	1.24	1	1.01	0/904	1/622	1	0.73	4.2E-01	3.19
<i>IL1A</i>	rs79919093	2:113539195	T	C	p.N102S	1/1980	1/1596	1	1.24	1	1.01	0/904	1/622	1	0.73	4.2E-01	3.19
<i>IL1RL1</i>	.	2:102968364	G	C	p.A552P	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL1RL2</i>	rs200908894	2:102804330	G	C	p.M1I	1/1980	1/1596	1	1.24	1	1.01	0/904	1/622	1	0.73	4.2E-01	3.19
<i>IL22RA1</i>	rs139839650	1:24447988	C	A	p.Q344H	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL2RA</i>	.	10:6066210	G	C	p.P122A	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL4R</i>	rs200822191	16:27375004	G	A	p.P777L	1/1980	1/1596	1	1.24	1	1.01	0/904	1/622	1	0.73	4.2E-01	3.19
<i>IL5RA</i>	rs529724275	3:3139633	C	G	p.W210C	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL6R</i>	.	1:154408502	G	A	p.V289M	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL12B</i>	.	5:158743860	G	A	intron	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL16</i>	rs558995921	15:81598749	T	C	intron	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL32</i>	.	16:3117453	G	A	intron	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL32</i>	.	16:3117619	G	T	intron	1/1980	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL23A</i>	rs551688276	12:56733894	G	A	utr-3	1/1978	1/1596	1	1.24	1	1.01	0/904	1/622	1	0.73	4.2E-01	3.18
<i>IL34</i>	.	16:70693657	G	C	spliceSite	1/1978	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL17F</i>	.	6:52102020	C	A	intron	1/1978	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL2RB</i>	.	22:37528413	C	T	intron	1/1978	1/1596	1	1.24	1	1.01	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL16</i>	.	15:81585056	G	A	p.S527N	0/1980	12/1596	6.1E-05	31.25	1	NA	6/904	5/622	9.4E-04	28.66	7.7E-04	35.28
<i>IL18R1</i>	rs190444568	2:103003348	A	G	p.S279S	0/1980	11/1596	1.4E-04	28.73	1	NA	4/904	7/622	9.6E-03	19.79	4.4E-05	48.27
<i>IL32</i>	.	16:3117312	A	G	intron	11/1978	0/1596	1.6E-03	0.05	1	NA	0/904	0/622	2.2E-02	0.09	7.7E-02	0.14
<i>IL16</i>	rs533073532	15:81574916	G	A	intron	1/1976	1/1596	1	1.24	1	1.00	1/904	0/622	5.3E-01	2.19	1	1.06
<i>IL1R2</i>	rs28362312	2:102626142	C	G	p.S62R	8/1980	0/1596	1.0E-02	0.07	1	NA	0/904	0/622	6.3E-02	0.13	2.1E-01	0.19
<i>IL26</i>	rs199583345	12:68619022	C	A	p.M90I	8/1980	0/1596	1.0E-02	0.07	1	NA	0/904	0/622	6.3E-02	0.13	2.1E-01	0.19
<i>IL13RA2</i>	.	X:114244243	G	A	intron	0/1980	7/1596	3.5E-03	18.69	1	NA	7/904	0/622	2.9E-04	33.10	1	3.18
<i>IL6R</i>	.	1:154437711	C	T	p.T421I	7/1980	0/1596	1.9E-02	0.08	1	NA	0/904	0/622	1.1E-01	0.15	2.1E-01	0.21
<i>IL1RAP1</i>	rs201566167	X:104984526	G	A	intron	6/1980	0/1596	3.7E-02	0.10	1	NA	0/904	0/622	1.9E-01	0.17	3.5E-01	0.24
<i>IL17RA</i>	rs201832832	22:17588578	C	G	intron	6/1980	0/1596	3.7E-02	0.10	1	NA	0/904	0/622	1.9E-01	0.17	3.5E-01	0.24
<i>IL16</i>	.	15:81517832	G	A	p.S31N	0/1980	5/1596	1.8E-02	13.69	1	NA	4/904	1/622	9.6E-03	19.79	2.4E-01	9.56
<i>IL2RB</i>	rs148074427	22:37524683	G	A	p.P370L	5/1980	0/1596	7.0E-02	0.11	1	NA	0/904	0/622	3.3E-01	0.20	6.0E-01	0.29
<i>IL18RA1</i>	.	2:103057773	G	A	p.V244V	5/1980	0/1596	7.0E-02	0.11	1	NA	0/904	0/622	3.3E-01	0.20	6.0E-01	0.29
<i>IL12RB2</i>	rs200863157	1:67861521	G	A	p.E780K	5/1980	0/1596	7.0E-02	0.11	1	NA	0/904	0/622	3.3E-01	0.20	6.0E-01	0.29
<i>IL1RAP1</i>	.	X:103903644	C	G	p.T17R	0/1980	4/1596	4.0E-02	11.19	1	NA	4/904	0/622	9.6E-03	19.79	1	3.18

IL2RB	rs200697945	22:37533783	C	T	intron	5/1980	0/1596	7.0E-02	0.11	1	NA	0/904	0/622	3.3E-01	0.20	6.0E-01	0.29
IL1R2	.	2:102626186	C	T	p.T77M	0/1980	4/1596	4.0E-02	11.19	1	NA	1/904	3/622	3.1E-01	6.58	1.4E-02	22.38
IL13RA1	.	X:117925971	C	T	utr-3	4/1970	0/1596	1.3E-01	0.13	1	NA	0/892	0/606	3.1E-01	0.23	5.8E-01	0.34
IL1RAP1	.	X:104984709	A	G	intron	4/1980	0/1596	1.3E-01	0.14	1	NA	0/904	0/622	3.2E-01	0.24	5.8E-01	0.35
IL17RB	.	3:53891580	G	A	intron	0/1980	4/1596	4.0E-02	11.19	1	NA	2/904	2/622	9.8E-02	10.97	5.7E-02	15.96
IL12RB2	rs142761711	1:67861242	C	A	p.L687M	0/1980	4/1596	4.0E-02	11.19	1	NA	2/904	1/622	9.8E-02	10.97	2.4E-01	9.56
IL17B	.	5:148753979	G	A	p.R166C	0/1946	4/1584	4.0E-02	11.08	1	NA	1/900	3/614	3.2E-01	6.49	1.4E-02	22.28
IL17RA	rs879576	22:17589246	G	A	p.K379K	4/1978	0/1596	1.3E-01	0.14	1	NA	0/904	0/622	3.2E-01	0.24	5.8E-01	0.35
IL24	.	1:207074966	T	A	p.F144Y	0/1980	4/1596	4.0E-02	11.19	1	NA	4/904	0/622	9.6E-03	19.79	1	3.18
IL17RB	rs375141109	3:53880620	C	T	p.S2L	4/1974	0/1596	1.3E-01	0.14	1	NA	0/904	0/622	3.2E-01	0.24	5.8E-01	0.35
IL6R	.	1:154402968	A	T	p.E115V	4/1980	0/1596	1.3E-01	0.14	1	NA	0/904	0/622	3.2E-01	0.24	5.8E-01	0.35
IL10RB	.	21:34640836	C	T	intron	0/1980	4/1596	4.0E-02	11.19	1	NA	0/904	4/622	1	2.19	3.2E-03	28.82
IL19	rs11802960	1:207013177	C	T	intron	4/1980	0/1596	1.3E-01	0.14	1	NA	0/904	0/622	3.2E-01	0.24	5.8E-01	0.35
IL10RA	rs368287711	11:117860269	C	T	p.R101W	4/1978	0/1596	1.3E-01	0.14	1	NA	0/904	0/622	3.2E-01	0.24	5.8E-01	0.35
IL15	rs114174444	4:142653987	A	G	p.I159V	4/1980	0/1596	1.3E-01	0.14	1	NA	0/904	0/622	3.2E-01	0.24	5.8E-01	0.35
IL1A	.	2:113535591	T	G	p.Q196H	4/1980	0/1596	1.3E-01	0.14	1	NA	0/904	0/622	3.2E-01	0.24	5.8E-01	0.35
IL5RA	rs560218273	3:3118229	C	T	p.S359S	4/1980	0/1596	1.3E-01	0.14	1	NA	0/904	0/622	3.2E-01	0.24	5.8E-01	0.35
IL1RAP1	.	X:104512063	A	G	intron	3/1980	0/1594	2.6E-01	0.18	1	NA	0/902	0/622	5.6E-01	0.31	1	0.45
IL6R	rs2228144	1:154000000	G	A	p.A31A	269/1980	218/1596	9.6E-01	1.01	1	1.00	114/904	97/622	5.2E-01	0.92	2.1E-01	1.18
IL13RA1	.	X:117895249	C	T	p.F275F	3/1976	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL18R1	rs56183212	2:102984352	G	A	p.S42S	0/1980	3/1596	8.9E-02	8.70	1	NA	0/904	3/622	1	2.19	1.4E-02	22.38
IL1A	rs202006254	2:113532737	G	A	p.N241N	0/1980	3/1596	8.9E-02	8.70	1	NA	1/904	2/622	3.1E-01	6.58	5.7E-02	15.96
IL17RA	.	22:17590536	G	A	p.T809T	0/1978	3/1596	8.9E-02	8.69	1	NA	0/904	2/622	1	2.19	5.7E-02	15.94
IL10RA	rs553864757	11:117866397	G	A	p.R261Q	0/1980	3/1596	8.9E-02	8.70	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
IL21	rs374239594	4:123533934	G	A	intron	0/1980	3/1596	8.9E-02	8.70	1	NA	2/904	1/622	9.8E-02	10.97	2.4E-01	9.56
IL1RAP	.	3:190326844	T	C	p.C137C	0/1980	3/1596	8.9E-02	8.70	1	NA	1/904	2/622	3.1E-01	6.58	5.7E-02	15.96
IL27	.	16:28515334	T	C	p.Q23Q	0/1980	3/1596	8.9E-02	8.70	1	NA	2/904	1/622	9.8E-02	10.97	2.4E-01	9.56
IL5RA	.	3:3139841	C	T	p.T167T	0/1980	3/1596	8.9E-02	8.70	1	NA	2/904	1/622	9.8E-02	10.97	2.4E-01	9.56
IL12B	.	5:158749544	C	T	intron	0/1980	3/1596	8.9E-02	8.70	1	NA	0/904	3/622	1	2.19	1.4E-02	22.38
IL1RL1	rs149858084	2:102955282	A	G	intron	0/1980	3/1596	8.9E-02	8.70	1	NA	2/904	1/622	9.8E-02	10.97	2.4E-01	9.56
IL32	.	16:3117424	T	C	intron	0/1980	3/1596	8.9E-02	8.70	1	NA	1/904	2/622	3.1E-01	6.58	5.7E-02	15.96
IL5RA	.	3:3131915	A	G	intron	0/1980	3/1596	8.9E-02	8.70	1	NA	2/904	1/622	9.8E-02	10.97	2.4E-01	9.56
IL12RB1	rs17878954	19:18186537	C	T	intron	0/1970	3/1596	9.0E-02	8.66	1	NA	2/904	1/622	9.9E-02	10.92	2.4E-01	9.51
IL32	.	16:3119390	C	G	utr-3	0/1978	3/1596	8.9E-02	8.69	1	NA	2/904	1/622	9.8E-02	10.96	2.4E-01	9.55
IL10RA	.	11:117870359	C	T	utr-3	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL1RL2	.	2:102855728	G	A	utr-3	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL17B	rs2227460	5:148754136	G	A	p.P113P	3/1948	0/1580	2.6E-01	0.18	1	NA	0/894	0/618	5.6E-01	0.31	1	0.45
IL22RA1	.	1:24460773	C	G	p.R153R	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL5RA	rs142856302	3:3144359	G	A	p.D76D	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL12RB1	.	19:18186577	G	A	p.P228S	3/1978	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL23R	.	1:67672722	C	A	p.T261K	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL24	rs539103349	1:207075401	G	A	p.R16Q	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL5RA	.	3:3118272	A	G	p.I345T	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL13RA2	.	X:114238709	C	T	intron	3/1978	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL10RA	rs376956484	11:117857260	G	A	intron	3/1972	0/1590	2.6E-01	0.18	1	NA	0/900	0/620	5.6E-01	0.31	1	0.45
IL17A	.	6:52053896	G	T	p.A92S	3/1980	0/1594	2.6E-01	0.18	1	NA	0/902	0/622	5.6E-01	0.31	1	0.45
IL1RL2	rs148263719	2:102804318	C	T	utr-5	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL23A	rs11465744	12:56732794	G	A	utr-5	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL16	rs143808111	15:81575014	C	T	p.S372S	3/1978	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL1RN	.	2:113888635	G	A	p.V55V	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL10RA	.	11:117859216	A	G	p.R63G	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL17RA	.	22:17578776	A	G	p.T85A	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL1RAP	rs138967210	3:190321983	G	T	p.R44L	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
IL4R	.	16:27373919	G	A	p.G416K	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45

<i>IL17RB</i>	rs2232333	3:53882661	A	G	intron	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
<i>IL1R2</i>	.	2:102638747	G	C	intron	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
<i>IL27</i>	.	16:28518048	G	A	intron	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
<i>IL16</i>	.	15:81574966	T	A	intron	3/1978	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
<i>IL4R</i>	.	16:27370185	C	T	intron	3/1980	0/1596	2.6E-01	0.18	1	NA	0/904	0/622	5.6E-01	0.31	1	0.45
<i>IL10RB</i>	.	21:34655434	C	G	p.L178L	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL18RAI</i>	.	2:103059697	C	T	p.G278G	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL18RAI</i>	rs140183707	2:103067330	C	T	p.F411F	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL12RB2</i>	rs185002143	1:67795372	G	A	p.R256Q	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL12RB2</i>	rs145064314	1:67838152	G	A	p.R498H	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL10RA</i>	.	11:117859253	T	G	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL11RA</i>	.	9:34660215	C	T	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL18RAI</i>	.	2:103059834	T	A	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL1B</i>	rs192715508	2:113588911	C	G	p.L185L	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL1RN</i>	rs545976021	2:113887222	A	G	p.G44G	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL2</i>	rs369900603	4:123374952	T	C	p.E88E	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL4</i>	rs535279636	5:132010171	C	T	p.T52T	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL22RA1</i>	.	1:24460698	C	T	spliceSite	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL10RA</i>	rs543841858	11:117869903	G	A	p.P428L	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL16</i>	.	15:81600000	G	A	p.R482H	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL4R</i>	.	16:27351582	G	T	p.V20L	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL12B</i>	.	5:158745911	A	G	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL13RAI</i>	rs375262048	X:117874953	A	T	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL17RA</i>	.	22:17586457	C	G	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL2</i>	rs2069765	4:123377235	G	T	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL27</i>	.	16:28518046	T	C	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL2RA</i>	.	10:6061815	G	A	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL1RAP</i>	.	3:190345248	G	T	intron	0/1978	2/1596	2.0E-01	6.20	1	NA	1/904	1/622	3.1E-01	6.57	2.4E-01	9.55
<i>IL16</i>	.	15:81574918	C	T	intron	0/1976	2/1596	2.0E-01	6.20	1	NA	0/904	2/622	1	2.19	5.7E-02	15.93
<i>IL12A</i>	rs540351202	3:159708015	C	T	p.P60P	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	0/622	1	2.19	1	3.18
<i>IL17RA</i>	rs546131366	22:17589519	C	T	p.D470D	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL17RA</i>	.	22:17590518	G	A	p.Q803Q	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL18</i>	.	11:112020826	T	C	p.L65L	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL18R1</i>	.	2:102992408	G	A	p.T170T	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL1R2</i>	rs201561547	2:102644740	C	T	p.F361F	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL1RL2</i>	rs35960329	2:102851496	C	T	p.D479D	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	0/622	1	2.19	1	3.18
<i>IL22RAI</i>	rs199519515	1:24447388	C	T	p.K544K	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL22RAI</i>	rs151086369	1:24448054	G	A	p.S322S	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL23R</i>	rs142531596	1:67724313	G	A	p.P464P	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL16</i>	rs540593814	15:81561876	C	T	spliceSite	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL9</i>	rs565456143	5:135229820	G	T	p.C68*	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL34</i>	rs368367274	16:70693597	G	A	p.R160*	0/1978	2/1596	2.0E-01	6.20	1	NA	0/904	2/622	1	2.19	5.7E-02	15.94
<i>IL11RA</i>	.	9:34660584	G	A	p.A386T	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL12RB2</i>	.	1:67804375	C	A	p.L343I	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL13</i>	rs376870298	5:131993925	C	T	p.A16V	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL18RAI</i>	rs142064249	2:103053732	T	C	p.Y214H	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1R2</i>	rs374741053	2:102632436	A	G	p.T146A	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL1RL2</i>	.	2:102836438	G	A	p.A318T	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL22RA1</i>	.	1:24448185	G	C	p.Q279E	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL2RB</i>	.	22:37524612	C	T	p.E394K	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL4R</i>	.	16:27353554	G	T	p.L61F	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL4R</i>	.	16:27374445	C	T	p.A591V	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL4R</i>	.	16:27375003	C	T	p.P777L	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL6R</i>	.	1:154408569	T	C	p.M311T	0/1980	2/1596	2.0E-01	6.21	1	NA	1/904	1/622	3.1E-01	6.58	2.4E-01	9.56

<i>IL15</i>	.	4:142640648	G	T	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	1/622	3.1E-01	6.58	2.4E-01	9.56
<i>IL4R</i>	.	16:27357775	G	A	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL7</i>	.	8:79646076	T	A	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL17A</i>	.	6:52051194	A	G	utr-5	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL25</i>	.	14:23842092	G	C	utr-5	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL17RA</i>	rs373070776	22:17590575	G	A	p.G822G	2/1978	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL1A</i>	.	2:113535609	T	C	p.Q190Q	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL1R1</i>	.	2:102792856	A	G	p.R449R	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL1RAP</i>	.	3:190338081	G	A	p.Q185Q	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL32</i>	rs117009471	16:3117993	G	A	p.S41S	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL10RA</i>	rs201980658	11:117859114	C	G	p.P29A	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL12RB1</i>	.	19:18188459	T	C	p.Y139C	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL12RB2</i>	.	1:67833681	C	T	p.P478S	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL17RA</i>	.	22:17579724	C	T	p.R124C	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL17RA</i>	.	22:17589512	G	A	p.R468H	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL18RA1</i>	.	2:103063563	G	T	p.G369V	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL1F10</i>	.	2:113832822	G	A	p.A114T	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL1RL1</i>	rs141061248	2:102956584	C	T	p.A100M	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL21</i>	.	4:123536924	G	T	p.N91K	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL34</i>	rs141513638	16:70694056	C	T	p.P232L	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL4R</i>	rs201852059	16:27353529	A	G	p.N53S	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL6R</i>	rs201215537	1:154427026	G	A	p.G377R	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL22RA1</i>	.	1:24465249	C	A	intron	2/1978	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL7</i>	rs539025716	8:79717063	C	G	intron	2/1978	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL18</i>	.	11:112019472	T	C	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL18RA1</i>	rs377714979	2:103059616	C	A	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL32</i>	rs555441503	16:3117546	T	C	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL5RA</i>	.	3:3116607	A	G	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL34</i>	.	16:70694110	C	A	utr-3	2/1978	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL2</i>	.	4:123372869	G	A	utr-3	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL34</i>	.	16:70694098	G	T	utr-3	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL10RA</i>	.	11:117869732	G	A	p.G371G	2/1978	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL27</i>	rs149261658	16:28511053	G	A	p.A217A	2/1978	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL16</i>	rs530049063	15:81552220	C	T	p.T140T	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL17RA</i>	.	22:17590254	C	T	p.S715S	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL19</i>	.	1:207013254	C	T	p.F90F	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL1A</i>	.	2:113539398	G	A	p.S34S	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL22</i>	.	12:68647058	G	A	p.F57F	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL3</i>	.	5:131398376	T	C	p.H117H	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL16</i>	.	15:81598326	C	T	p.N465N	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL10</i>	rs201365412	1:206944259	C	T	p.R124Q	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL10RA</i>	.	11:117859118	C	T	p.P30L	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL10RA</i>	rs202121581	11:117866400	G	A	p.R262H	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL11RA</i>	rs376290527	9:34660313	C	T	p.T332M	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL12RB1</i>	rs192185254	19:18183020	T	C	p.Y308C	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL15RA</i>	rs371140892	10:6008149	G	A	p.T81M	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL16</i>	.	15:81584954	A	G	p.E493G	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL16</i>	.	15:81598884	A	C	p.K567T	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL18RA1</i>	.	2:103057813	G	A	p.E258K	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL1RL1</i>	.	2:102956583	G	A	p.A100M	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL2</i>	.	4:123372986	G	A	p.A128V	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL22RA1</i>	rs16829204	1:24454688	C	T	p.V205I	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL22RA1</i>	rs190183581	1:24460819	A	G	p.I138T	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL26</i>	rs202003333	12:68619406	G	C	p.A44G	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64

<i>IL2RA</i>	.	10:6063620	G	T	p.A135D	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL2RB</i>	.	22:37524214	A	T	p.N526K	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL4R</i>	.	16:27373812	A	T	p.E380L	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL5RA</i>	rs201305563	3:3143447	C	T	p.R99Q	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL6R</i>	.	1:154401686	G	A	p.V34M	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL6R</i>	.	1:154408541	G	A	p.E302K	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL7</i>	rs370457429	8:79652295	C	T	p.S57N	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL12RB</i>	rs146620062	19:18193119	G	A	intron	2/1970	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.63
<i>IL16</i>	.	15:81574962	G	A	intron	2/1978	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL22RA</i>	rs376620895	1:24465251	C	T	intron	2/1978	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL36RN</i>	.	2:113819669	C	T	intron	2/1978	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL10RA</i>	.	11:117863933	C	T	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL13</i>	rs368320626	5:131995820	C	T	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL16</i>	.	15:81578034	C	A	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL16</i>	rs375189576	15:81578212	C	T	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL18RA1</i>	.	2:103040627	A	G	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL1RL2</i>	.	2:102835553	T	C	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL1RL2</i>	.	2:102849391	C	T	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL2RA</i>	rs28360490	10:6061479	A	C	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL2RB</i>	.	22:37533552	A	G	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL4R</i>	rs368332343	16:27372026	C	T	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL5RA</i>	rs371719318	3:3118181	C	A	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL5RA</i>	.	3:3136941	C	G	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL34</i>	.	16:70694107	C	T	utr-3	2/1978	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL2RB</i>	.	22:37524134	G	C	utr-3	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL10RA</i>	rs192749274	11:117860304	C	T	p.T112T	2/1978	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL13RA1</i>	.	X:117892072	A	G	p.Q181Q	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL18</i>	.	11:112014466	A	G	p.H145H	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL4R</i>	.	16:27374134	G	A	p.T487T	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL1RL1</i>	rs542676988	2:102955293	G	A	spliceSite	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL13RA2</i>	.	X:114238653	C	G	p.C378S	2/1978	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL12B</i>	rs367828574	5:158743808	G	A	p.T291M	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL17F</i>	.	6:52101922	G	A	p.A100V	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL17RA</i>	.	22:17590469	G	T	p.R787L	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL22RA1</i>	.	1:24447438	T	A	p.S528C	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL3</i>	.	5:131396685	A	G	p.D63S	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL32</i>	rs555143181	16:3117986	T	C	p.V39A	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL4R</i>	.	16:27374126	A	G	p.T485A	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL18R1</i>	.	2:102992530	G	A	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL1RN</i>	.	2:113890194	T	C	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL5RA</i>	.	3:3146693	C	T	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL6</i>	rs200598794	7:22769303	A	G	intron	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL10</i>	.	1:206941934	A	T	utr-3	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	0/622	1	2.19	1	3.18
<i>IL22</i>	.	12:68642559	A	T	utr-3	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL16</i>	.	15:81584943	G	A	p.E489E	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL16</i>	.	15:81592487	G	A	p.P239P	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL1R2</i>	.	2:102632345	C	T	p.Y115Y	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL22</i>	rs199546412	12:68642609	C	T	p.L170L	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL3</i>	.	5:131398385	C	T	p.D120D	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL27</i>	.	16:28518099	C	T	spliceSite	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL9</i>	.	5:135231128	C	T	spliceSite	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL16</i>	.	15:81592332	C	T	p.R188*	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL25</i>	.	14:23844854	G	A	p.R84*	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL10RA</i>	rs2229114	11:117869878	C	T	p.S420L	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18

<i>IL10RB</i>		21:34660504	G	A	p.V248I	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL13</i>		5:131993897	C	T	p.P7S	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL13</i>		5:131993921	A	G	p.M15V	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL16</i>		15:81561892	C	G	p.P193R	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL16</i>		15:81584902	A	G	p.K476E	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL16</i>		15:81585164	C	G	p.P563R	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	0/622	1	2.19	1	3.18
<i>IL16</i>		15:81589306	A	G	p.E647G	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL16</i>		15:81598866	C	T	p.T561I	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL17RA</i>		22:17589323	C	G	p.A405G	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL17RB</i>		3:53899226	A	G	p.H467R	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL18</i>	rs199644300	11:112014401	C	T	p.R167K	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL18RA1</i>		2:103061684	G	A	p.R319N	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL19</i>	rs367592655	1:207010077	G	A	p.G24S	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1A</i>		2:113540312	T	C	p.D26G	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1A</i>		2:113540316	T	C	p.I25V	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL1B</i>	rs376289593	2:113593779	C	T	p.E10K	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1RL1</i>		2:102964530	A	C	p.K366Q	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL1RL1</i>	rs372144350	2:102968169	G	A	p.E487K	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL23A</i>		12:56733210	G	T	p.D55Y	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL24</i>		1:207075386	G	A	p.R11Q	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL2RA</i>		10:6067917	T	A	p.M46L	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL3</i>		5:131396527	T	C	p.I43T	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL4</i>	rs550558636	5:132018272	C	T	p.S152L	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL4R</i>		16:27370271	C	G	p.P269A	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL5</i>	rs147426159	5:131877734	T	G	p.L93F	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL6</i>		7:22771124	A	G	p.T191A	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL7</i>		8:79652256	T	C	p.H70R	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	0/622	1	2.19	1	3.18
<i>IL11RA</i>	rs142497211	9:34660927	C	T	p.R416C	0/1978	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.57	1	3.18
<i>IL22</i>	rs193141507	12:68646234	G	C	intron	0/1976	1/1590	4.5E-01	3.73	1	NA	0/902	1/618	1	2.19	2.4E-01	9.60
<i>IL10RB</i>		21:34640833	C	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL16</i>		15:81600000	C	G	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL18RA1</i>		2:103040936	G	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1F10</i>		2:113830237	C	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL1R1</i>		2:102785049	T	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1RAP1</i>		3:190366078	T	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL21</i>		4:123536830	A	G	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL24</i>		1:207075307	A	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL2RA</i>	rs537468520	10:6104004	T	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL32</i>	rs372765113	16:3115876	C	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL5</i>		5:131877687	A	G	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL5RA</i>		3:3136918	T	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL5RA</i>		3:3139809	T	A	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL6</i>		7:22767263	C	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL6R</i>	rs143861748	1:154422514	C	A	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL9</i>		5:135229689	A	G	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1A</i>		2:113535700	A	C	intron	0/1978	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.57	1	3.18
<i>IL1RAP1</i>		X:104478705	T	A	intron	0/1978	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.55
<i>IL22</i>	rs182657603	12:68646509	G	A	intron	0/1978	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.57	1	3.18
<i>IL2RB</i>		22:37528408	C	T	intron	0/1978	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.57	1	3.18
<i>IL34</i>		16:70693848	G	A	intron	0/1976	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.56	1	3.18
<i>IL27</i>		16:28511279	C	G	intron	0/1910	1/1580	4.5E-01	3.63	1	NA	1/896	0/614	3.2E-01	6.40	1	3.11
<i>IL13RA2</i>		X:114249294	C	T	intron	2/1936	0/1590	5.0E-01	0.24	1	NA	0/902	0/618	1	0.43	1	0.63
<i>IL27</i>		16:28511301	A	G	intron	1/1854	0/1542	1	0.40	1	NA	0/872	0/604	1	0.71	1	1.02
<i>IL16</i>		15:81517641	G	C	utr-5	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18

<i>IL16</i>	rs200683061	15:81517681	C	T	utr-5	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL8</i>	rs56002960	4:74606355	A	T	utr-5	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL10</i>	.	1:206945782	C	T	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL12RB1</i>	rs373990244	19:18197684	G	A	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL16</i>	.	15:81517705	G	A	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17B</i>	.	5:148758791	C	T	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17F</i>	.	6:52109266	T	A	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17F</i>	.	6:52109271	A	G	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1R2</i>	.	2:102625009	C	T	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL26</i>	.	12:68619556	C	T	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL8</i>	.	4:74606250	G	A	utr-5	1/1976	0/1594	1	0.41	1	NA	0/904	0/620	1	0.73	1	1.06
<i>IL25</i>	.	14:23845109	G	A	utr-3	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL7</i>	.	8:79645890	A	G	utr-3	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	0/622	1	2.19	1	3.18
<i>IL10RB</i>	.	21:34668674	G	T	utr-3	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1A</i>	rs370788117	2:113532597	A	G	utr-3	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL25</i>	.	14:23845112	C	G	utr-3	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL3</i>	.	5:131398496	A	G	utr-3	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL32</i>	rs539295865	16:3119411	C	T	utr-3	1/1976	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL4</i>	.	5:132018296	G	A	utr-3	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL13RA2</i>	rs368591186	X:114239865	C	T	p.S337S	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL13RA2</i>	rs190040213	X:114248343	G	A	p.N170N	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL12RB1</i>	.	19:18183067	C	G	p.P292P	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL12RB2</i>	.	1:67794033	T	C	p.S210S	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL13</i>	.	5:131993941	G	A	p.T21T	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL16</i>	.	15:81584919	T	C	p.S481S	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL17A</i>	.	6:52052559	G	A	p.R62R	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL17RA</i>	.	22:17582920	A	C	p.P195P	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL19</i>	.	1:207013248	G	A	p.R88R	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1RL1</i>	.	2:102954781	G	A	p.K19K	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1RL1</i>	.	2:102957179	C	T	p.V167V	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1RL1</i>	.	2:102965615	G	A	p.E398E	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1RL1</i>	.	2:102968306	G	A	p.R532R	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL22RA1</i>	.	1:24449906	T	C	p.T226T	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL25</i>	.	14:23842591	C	A	p.S72S	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL26</i>	.	12:68619489	C	T	p.L16L	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL3</i>	.	5:131398464	T	C	p.L147L	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL34</i>	.	16:70690893	C	A	p.R91R	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL6R</i>	.	1:154407010	C	T	p.A158A	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL6R</i>	.	1:154407019	C	T	p.F161F	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL34</i>	.	16:70693586	G	A	p.L156L	0/1978	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.55
<i>IL2RB</i>	.	22:37524510	G	A	p.L428L	0/1976	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.56	1	3.18
<i>IL13RA1</i>	.	X:117880988	C	T	p.S100S	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64
<i>IL10RA</i>	.	11:117860310	C	A	p.T114T	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL12RB1</i>	rs193097863	19:18187135	G	A	p.G184G	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL12RB1</i>	rs146102898	19:18193019	G	A	p.Y60Y	1/1976	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL12RB2</i>	rs181312192	1:67786079	T	C	p.L10L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL12RB2</i>	.	1:67804335	C	T	p.Y329Y	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL13</i>	.	5:131994043	G	A	p.Q55Q	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL15</i>	.	4:142651065	C	T	p.S102S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL16</i>	rs199588509	15:81561965	C	T	p.I217I	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL16</i>	rs373717299	15:81578111	C	A	p.I424I	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL16</i>	rs146704319	15:81591866	T	C	p.H32H	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL16</i>	.	15:81592373	A	G	p.Q201Q	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17A</i>	.	6:52052505	T	C	p.T44T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06

<i>IL17A</i>	.	6:52053964	C	A	p.P114P	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17RB</i>	.	3:53898807	A	C	p.T327T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL18R1</i>	rs199966642	2:102992423	C	T	p.A175A	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL18RA1</i>	.	2:103068236	A	G	p.E465E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1A</i>	.	2:113535629	G	A	p.L184L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1B</i>	.	2:113591030	C	T	p.L74L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1R1</i>	rs3917320	2:102792875	A	C	p.R456R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RAP</i>	.	3:190326796	T	C	p.Y121Y	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RAP1</i>	.	3:190366203	C	A	p.L474L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	.	X:105011057	A	G	p.E488E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	.	2:102957257	T	C	p.S193S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	rs545075452	2:102968168	C	T	p.S486S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL2</i>	.	2:102828615	T	C	p.H235H	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL22RA1</i>	.	1:24463724	C	T	p.E84E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL23A</i>	.	12:56733216	A	C	p.R57R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL23R</i>	.	1:67666528	C	T	p.N200N	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL26</i>	.	12:68595801	A	G	p.Y142Y	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL26</i>	rs149872597	12:68619425	A	G	p.L38L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL27</i>	.	16:28513450	C	T	p.P103P	1/1972	0/1594	1	0.41	1	NA	0/902	0/622	1	0.73	1	1.06
<i>IL2RA</i>	.	10:6067885	G	A	p.R56R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL2RB</i>	.	22:37524256	G	T	p.P512P	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL3</i>	rs146898761	5:131398248	G	A	p.T108T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL34</i>	.	16:70690516	C	T	p.F58F	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL34</i>	rs368553371	16:70690943	C	T	p.D107D	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL4</i>	.	5:132010162	C	T	p.T49T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL4R</i>	rs2234897	16:27373612	T	C	p.F313F	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL5</i>	.	5:131877740	C	T	p.L91L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL9</i>	.	5:135231129	A	G	p.S61S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL15RA</i>	rs369106016	10:6001753	C	T	spliceSite	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1B</i>	.	2:113593197	G	A	spliceSite	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1R2</i>	.	2:102632329	T	A	spliceSite	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1RL2</i>	.	2:102804312	G	T	spliceSite	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL12RB2</i>	.	1:67838220	G	T	spliceSite	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL15RA</i>	.	10:6002534	T	C	spliceSite	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL24</i>	.	1:207071222	G	T	spliceSite	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL32</i>	.	16:3117417	G	A	spliceSite	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL21</i>	.	4:123533867	A	G	p.*163R	r1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL23R</i>	.	1:67635217	G	A	p.W88*	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL10RA</i>	.	11:117864081	C	T	p.R165*	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17RB</i>	.	3:53886945	T	A	p.Y134*	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL2</i>	.	2:102805748	G	T	p.G91*	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL2</i>	.	2:102835523	C	T	p.R279*	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL25</i>	rs145160878	14:23844853	C	T	p.R84*	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL5RA</i>	.	3:3116538	C	T	p.W368*	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL13RA2</i>	.	X:114245264	A	T	p.S217T	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL13RA2</i>	.	X:114249046	C	A	p.C113F	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL13RA2</i>	.	X:114250346	A	G	p.Y45H	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL1RAPI</i>	.	X:104984643	G	A	p.R336Q	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL1RAPI</i>	.	X:104999287	A	G	p.K437E	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL17A</i>	.	6:52053923	A	G	p.N101D	0/1980	1/1594	4.5E-01	3.73	1	NA	1/902	0/622	3.1E-01	6.59	1	3.18
<i>IL10RA</i>	.	11:117866324	A	G	p.I237V	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL10RB</i>	.	21:34652209	G	A	p.G162S	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL11RA</i>	.	9:34659838	T	C	p.F298S	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL12A</i>	.	3:159711386	C	G	p.S151C	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18

<i>IL12B</i>	.	5:158747466	C	T	p.G182E	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL12B</i>	.	5:158750269	G	C	p.P53A	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL12B</i>	rs3213096	5:158750329	C	T	p.V33I	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL12RB2</i>	.	1:67816634	A	T	p.T374S	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL12RB2</i>	.	1:67833687	A	T	p.N480Y	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL12RB2</i>	.	1:67838365	T	G	p.I539S	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL12RB2</i>	rs201465672	1:67852334	C	T	p.T643M	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL12RB2</i>	.	1:67861509	G	A	p.D776N	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL16</i>	.	15:81517853	A	G	p.D38G	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL16</i>	rs149850550	15:81561921	G	A	p.V203M	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL16</i>	rs201587454	15:81578118	C	A	p.H427N	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL16</i>	.	15:81584900	T	A	p.V475D	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL16</i>	rs373859330	15:81592774	G	A	p.G335D	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL16</i>	rs371628497	15:81593776	G	A	p.V380I	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL16</i>	.	15:81598448	A	G	p.N506S	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL17A</i>	.	6:52051246	C	T	p.T61	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL17RB</i>	.	3:53883691	C	A	p.P32Q	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL17RB</i>	.	3:53899003	G	A	p.V393I	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL18</i>	.	11:112014509	G	A	p.T131I	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL18RA1</i>	.	2:103061683	C	A	p.R319N	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL18RA1</i>	.	2:103067386	A	T	p.E430V	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL18RA1</i>	.	2:103068460	G	C	p.R540T	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL1R1</i>	rs201410299	2:102793049	C	T	p.R514C	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1R2</i>	.	2:102625093	C	A	p.A19E	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1RL1</i>	.	2:102958703	T	C	p.F211L	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1RL1</i>	.	2:102958719	C	T	p.A216V	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1RL1</i>	.	2:102959517	G	C	p.C235S	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL1RL1</i>	.	2:102959634	A	C	p.Q274P	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL1RL1</i>	.	2:102968129	C	G	p.N473K	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL1RL1</i>	.	2:102968188	C	T	p.A493V	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1RL2</i>	.	2:102805542	G	A	p.C22Y	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL1RL2</i>	.	2:102808543	C	T	p.P151L	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL1RL2</i>	rs138105991	2:102842430	T	C	p.I355T	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL22</i>	.	12:68645327	C	T	p.R143K	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL22RA1</i>	rs549343073	1:24447909	C	T	p.E371K	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL22RA1</i>	.	1:24447918	C	A	p.V368L	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL22RA1</i>	.	1:24447927	C	A	p.A365S	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	0/622	1	2.19	1	3.18
<i>IL24</i>	.	1:207072793	C	T	p.P58L	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL2RA</i>	.	10:6067947	A	T	p.F36I	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL2RB</i>	.	22:37533631	C	G	p.W178S	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL3</i>	.	5:131398023	C	T	p.P75S	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL4R</i>	.	16:27353504	G	A	p.E45K	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL4R</i>	.	16:27373619	C	T	p.H316Y	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL4R</i>	.	16:27373923	A	G	p.E417G	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL5</i>	.	5:131878803	C	G	p.V54L	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL5RA</i>	.	3:3143384	G	A	p.A120V	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL6</i>	rs148828876	7:22771083	C	T	p.T177M	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL6R</i>	.	1:154407027	C	T	p.P164L	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL6R</i>	.	1:154420639	C	T	p.P330S	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL6R</i>	.	1:154437742	G	A	p.P431L	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL6R</i>	.	1:154437777	C	T	p.S443L	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL8</i>	rs185040023	4:74607746	A	G	p.K94R	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL17RA</i>	rs181468995	22:17590147	G	T	p.A680S	0/1976	1/1594	4.5E-01	3.72	1	NA	0/904	1/620	1	2.19	2.4E-01	9.57
<i>IL22</i>	.	12:68646322	G	A	p.P120S	0/1978	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.55

<i>IL11RA</i>	9:34658676	C	T	p.S269F	0/1970	1/1596	4.5E-01	3.71	1	NA	1/904	0/622	3.1E-01	6.54	1	3.17	
<i>IL13RA1</i>	X:117907870	A	G	p.I346M	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64	
<i>IL1RAPI</i>	X:104440375	A	G	p.I101V	2/1980	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.64	
<i>IL10</i>	1:206944721	A	C	p.S69A	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL10</i>	rs139073251	1:206945725	C	T	p.S19N	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL10RA</i>	rs143538561	11:117869853	C	T	p.R412W	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL11RA</i>	9:34657077	A	G	p.E126G	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL12B</i>	rs189313574	5:158747500	C	T	p.G171R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL12RB1</i>	rs201223132	19:18183110	G	A	p.T278M	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL12RB1</i>	rs573390658	19:18188375	C	T	p.G167D	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL12RB1</i>	rs200783433	19:18194292	C	T	p.R25K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL12RB2</i>	rs2307145	1:67833527	G	C	p.Q426H	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL12RB2</i>	1:67852316	T	C	p.M637T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL12RB2</i>	rs41313351	1:67861276	C	T	p.T698M	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL15</i>	4:142649094	C	T	p.S66F	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL15RA</i>	10:5998412	T	C	p.I208V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL15RA</i>	rs201871586	10:6002470	G	A	p.P148L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL15RA</i>	rs146869620	10:6005753	G	A	p.T112M	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL15RA</i>	10:6008189	C	T	p.G68S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL16</i>	rs183847813	15:81517772	G	A	p.R11K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL16</i>	rs201714634	15:81572037	G	A	p.A335T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL16</i>	15:81591736	C	T	p.P690L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL16</i>	rs34460207	15:81591816	A	G	p.I16V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL16</i>	15:81595921	A	C	p.H416P	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL16</i>	15:81601125	G	A	p.A628T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17A</i>	6:52052492	A	C	p.N40T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17A</i>	6:52052501	G	A	p.R43Q	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17A</i>	6:52053854	C	A	p.R78S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17A</i>	6:52053906	G	T	p.R95L	1/1980	0/1594	1	0.41	1	NA	0/902	0/622	1	0.73	1	1.06	
<i>IL17A</i>	6:52054078	C	A	p.H152Q	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RA</i>	22:17581345	A	G	p.H175R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RA</i>	22:17581362	C	A	p.L181I	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RA</i>	rs192300437	22:17589398	G	C	p.G430A	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17RA</i>	22:17589832	C	T	p.R575W	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RA</i>	22:17590570	C	T	p.P821S	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RB</i>	3:53883810	C	G	p.L72V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RB</i>	rs145364776	3:53883814	G	A	p.R73Q	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17RB</i>	3:53886038	T	C	p.L80S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RB</i>	rs2232337	3:53889368	G	A	p.G177R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17RB</i>	3:53892789	A	G	p.H264R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RB</i>	rs2232346	3:53892830	T	C	p.F278L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17RB</i>	3:53899138	A	G	p.I438V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18R1</i>	2:102984515	T	G	p.F97V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18R1</i>	2:102988439	A	G	p.N110S	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18R1</i>	2:103010959	A	G	p.Y381C	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18RA1</i>	2:103040315	G	C	p.E39Q	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18RA1</i>	rs140983423	2:103053816	A	G	p.T242A	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL18RA1</i>	2:103067416	A	G	p.D440G	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18RA1</i>	2:103067433	T	A	p.Y446N	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL19</i>	rs570830989	1:207013276	C	T	p.P98S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1A</i>	rs3783531	2:113539246	C	T	p.R85Q	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1B</i>	2:113591125	G	A	p.P43S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1F10</i>	2:113832300	A	C	p.E40A	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1F10</i>	2:113832369	G	A	p.G63E	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	

<i>IL1F10</i>	.	2:113832759	G	A	p.G93S	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1R1</i>	rs148561869	2:102781607	G	A	p.S110N	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1R2</i>	.	2:102626042	G	A	p.R29Q	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1R2</i>	rs139061430	2:102626209	C	T	p.R85W	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1R2</i>	.	2:102644721	C	A	p.A355D	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RAP</i>	.	3:190326884	A	G	p.I151V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RAP</i>	rs370635609	3:190366337	C	T	p.T519M	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	.	2:102955318	A	G	p.E28G	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	.	2:102956620	A	G	p.N112S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	.	2:102956650	T	C	p.V122A	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	rs143458919	2:102957280	C	T	p.T201M	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	.	2:102968023	T	C	p.I438T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	.	2:102968043	A	G	p.I445V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	.	2:102968178	A	G	p.M490V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL2</i>	.	2:102805631	G	A	p.V52I	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL2</i>	.	2:102849453	A	G	p.Y389C	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL2</i>	.	2:102851585	G	A	p.G509D	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL2</i>	rs200652363	2:102851669	C	T	p.P537L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RN</i>	rs573468124	2:113885300	C	G	p.S15R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RN</i>	.	2:113890268	G	T	p.K100N	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL21</i>	.	4:123534022	T	C	p.K141R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL21</i>	.	4:123542130	T	A	p.I13F	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL22RA1</i>	rs142471602	1:24447657	T	C	p.M455V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL22RA1</i>	rs143248338	1:24448198	C	T	p.P274L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL22RA1</i>	.	1:24448199	G	A	p.P274L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL23R</i>	.	1:67666430	G	A	p.E168K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL24</i>	rs554683447	1:207072688	C	T	p.A23V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL25</i>	.	14:23845075	C	T	p.R158C	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL26</i>	.	12:68618953	G	T	p.S113R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL27</i>	.	16:28518112	G	T	p.D7E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL2RA</i>	.	10:6061452	T	C	p.I222M	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL2RA</i>	.	10:6063507	C	T	p.G173R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL3</i>	.	5:131396684	G	A	p.D63S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL3</i>	.	5:131398391	C	G	p.D122E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL3</i>	.	5:131398432	C	T	p.T136I	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL32</i>	rs142297204	16:3118184	G	A	p.D49N	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL36RN</i>	.	2:113820063	A	G	p.K93E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL36RN</i>	.	2:113820208	G	A	p.G141D	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL4</i>	.	5:132015497	C	A	p.A92E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL4R</i>	.	16:27373811	G	T	p.E380L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL4R</i>	.	16:27373920	G	A	p.G416K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL4R</i>	.	16:27374196	C	T	p.P508L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL4R</i>	.	16:27374555	G	A	p.E628K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL4R</i>	.	16:27374562	G	A	p.G630E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL4R</i>	.	16:27374993	A	T	p.S774C	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL5</i>	rs201223432	5:131877580	G	A	p.R110W	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL5RA</i>	.	3:3111955	T	C	p.Y406C	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL5RA</i>	.	3:3118252	A	C	p.C352G	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL5RA</i>	.	3:3137013	T	A	p.K275N	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL5RA</i>	rs576219217	3:3137113	G	A	p.P242L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL5RA</i>	.	3:3139648	G	C	p.S205R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL5RA</i>	.	3:3143471	T	A	p.H91L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL5RA</i>	.	3:3144457	C	T	p.A44T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL6</i>	rs202138427	7:22767206	A	G	p.K55E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06

<i>IL6</i>	.	7:22771139	C	T	p.R196C	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL6R</i>	.	1:154402964	C	T	p.P114S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL6R</i>	.	1:154420626	C	G	p.N325K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL6R</i>	rs142732420	1:154437693	C	T	p.P415L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL9</i>	.	5:135228172	G	T	p.Q115K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL9</i>	.	5:135231460	C	T	p.V16M	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL13RA2.</i>	.	X:114239898	G	A	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL1R API.</i>	.	X:104440122	C	A	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	0/904	2/622	1	2.19	5.7E-02	15.96
<i>IL1R API.</i>	.	X:104440134	T	A	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL1R API.</i>	.	X:104999151	T	C	intron	0/1980	2/1596	2.0E-01	6.21	1	NA	2/904	0/622	9.8E-02	10.97	1	3.18
<i>IL17B</i>	.	5:148758862	A	G	intron	0/1978	1/1594	4.5E-01	3.72	1	NA	0/904	1/620	1	2.19	2.4E-01	9.58
<i>IL10RB</i>	.	21:34652043	G	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL12A</i>	.	3:159708144	G	A	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL12A</i>	rs538740981	3:159711430	G	A	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL12RB1.</i>	.	19:18182897	C	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL12RB2.</i>	.	1:67792366	G	A	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL16</i>	.	15:81592821	G	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL17RB</i>	.	3:53891034	C	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL18</i>	.	11:112024272	G	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL18RA1.</i>	.	2:103040616	T	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	0/622	1	2.19	1	3.18
<i>IL18RA1.</i>	.	2:103059816	C	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL18RA1</i> rs187104916	2:103067299	A	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56	
<i>IL19</i>	rs374010519	1:206972356	G	A	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL1B</i>	.	2:113593730	C	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL1F10</i>	.	2:113830267	C	A	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL1R2</i>	.	2:102636074	A	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	0/622	1	2.19	1	3.18
<i>IL1RAP</i>	.	3:190341102	T	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL1RL1</i>	.	2:102965530	C	G	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL21</i>	.	4:123533933	C	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL21</i>	rs551455524	4:123536798	A	G	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL23R</i>	.	1:67648502	G	A	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL2RB</i>	rs199729784	22:37533618	C	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL32</i>	.	16:3115866	G	A	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL32</i>	rs369495267	16:3117467	G	A	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL32</i>	rs566548333	16:3117970	C	A	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL32</i>	.	16:3117979	T	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL32</i>	.	16:3118013	T	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL36RN</i>	rs376683745	2:113817107	G	A	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL5RA</i>	rs147942670	3:3116437	C	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	0/622	1	2.19	1	3.18
<i>IL5RA</i>	rs140525458	3:3131894	G	A	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL5RA</i>	.	3:3131914	G	C	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL6R</i>	.	1:154403134	C	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.58	1	3.18
<i>IL8</i>	.	4:74607757	A	G	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	0/622	1	2.19	1	3.18
<i>IL9</i>	.	5:135231378	C	T	intron	0/1980	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.56
<i>IL17F</i>	.	6:52102019	G	A	intron	0/1978	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.57	1	3.18
<i>IL22</i>	.	12:68646278	A	G	intron	0/1978	1/1596	4.5E-01	3.72	1	NA	1/904	0/622	3.1E-01	6.57	1	3.18
<i>IL36RN</i>	rs540961337	2:113819649	G	T	intron	0/1978	1/1596	4.5E-01	3.72	1	NA	0/904	1/622	1	2.19	2.4E-01	9.55
<i>IL11RA</i>	.	9:34655203	C	G	intron	0/1930	1/1572	4.5E-01	3.69	1	NA	1/892	0/614	3.2E-01	6.50	1	3.14
<i>IL23A</i>	.	12:56733015	A	G	intron	2/1960	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.43	1	0.63
<i>IL1R API.</i>	.	X:104961294	G	A	intron	2/1972	0/1594	5.1E-01	0.25	1	NA	0/904	0/620	1	0.44	1	0.64
<i>IL13RA2.</i>	.	X:114248875	C	T	intron	2/1976	0/1596	5.1E-01	0.25	1	NA	0/904	0/622	1	0.44	1	0.63
<i>IL1R API.</i>	.	X:104512059	T	C	intron	2/1980	0/1594	5.1E-01	0.25	1	NA	0/902	0/622	1	0.44	1	0.64
<i>IL10RA</i>	.	11:117866462	C	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL10RB</i>	.	21:34655560	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06

IL11RA	rs538790943	9:34655558	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL11RA	.	9:34655564	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL11RA	.	9:34660236	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL11RA	.	9:34660840	C	G	intron	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL12A	.	3:159710760	T	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL12A	.	3:159711636	G	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL12RB2	.	1:67845848	T	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL16	.	15:81577992	G	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL17A	.	6:52053787	C	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL17F	.	6:52109138	G	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL17RA	.	22:17578017	A	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL17RA	rs201132835	22:17581405	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL17RB	.	3:53889295	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL17RB	.	3:53892703	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL17RB	rs2232345	3:53892720	T	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL18	.	11:112021000	T	C	intron	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL18	.	11:112025683	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL18R1	.	2:102992557	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL18R1	.	2:102998196	C	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL18RA1	.	2:103053663	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL18RA1	.	2:103057761	T	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL18RA1	.	2:103057864	T	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL19	rs563030514	1:207010159	T	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1A	.	2:113539174	C	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1A	.	2:113540253	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1R1	rs2041747	2:102788409	G	A	intron	1979/1980	1596/1596	1	2.42	1	NA	904/904	622/622	1	1.37	1	0.94
IL1R1	.	2:102791909	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1R2	.	2:102626321	T	A	intron	1/1976	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1R2	.	2:102642534	C	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1RAP	.	3:190282151	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1RAP	.	3:190366057	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1RAP	.	3:190366071	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1RAP1	.	X:104984488	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1RL1	.	2:102965505	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1RL1	.	2:102965506	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1RL2	.	2:102818199	T	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1RL2	rs537252438	2:102835399	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1RN	.	2:113875633	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL1RN	.	2:113885342	G	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL2	.	4:123375022	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL23R	.	1:67672588	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL24	.	1:207071062	G	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL26	.	12:68595777	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL26	.	12:68619090	T	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL26	.	12:68619359	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL27	.	16:28518052	A	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL2RA	.	10:6061821	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL2RB	rs12170117	22:37535130	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL2RB	rs377016918	22:37538460	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL3	rs377735929	5:131398000	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL3	.	5:131398282	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL32	.	16:3117654	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL32	.	16:3118056	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL34	.	16:70680895	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06

<i>IL36RN</i>	2:113816945	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL36RN</i> rs201484887	2:113818399	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL4</i>	5:132018155	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL4R</i>	16:27372049	G	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL5RA</i>	3:3139753	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL5RA</i>	3:3139759	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL5RA</i>	3:3139787	C	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL5RA</i>	3:3143324	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL6</i>	7:22770994	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL6R</i>	1:154401962	A	G	intron	1/1976	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL6R</i>	1:154420535	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL7</i>	rs557898291	8:79650674	A	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL7</i>	8:79717094	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL7</i>	8:79717129	A	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18RA1</i> rs11401010	2:103039686	C	A	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1R2</i>	2:102625012	G	A	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL26</i>	12:68619537	T	A	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL2RA</i>	10:6104142	C	A	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL32</i>	rs200820637	16:3115809	C	T	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL34</i>	16:70680804	C	A	utr-5	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RAP</i>	3:190366506	A	G	utr-3	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RN</i>	2:113890459	G	A	utr-3	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL22RA1</i>	1:24447260	G	C	utr-3	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL25</i>	14:23845091	C	T	utr-3	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL6R</i>	1:154437889	T	G	utr-3	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL10RA</i> rs4252311	11:117866311	C	T	p.T232T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL10RA</i>	11:117869441	G	A	p.K274K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL10RB</i>	21:34655494	G	A	p.R198R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL11RA</i>	9:34660305	G	A	p.Q329Q	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL11RA</i>	9:34660338	G	A	p.V340V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL11RA</i>	9:34660905	C	T	p.A408A	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL12A</i>	3:159706918	C	T	p.R25R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL12RB1</i>	19:18192986	A	G	p.A71A	1/1976	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL12RB2</i> rs371377217	1:67838444	C	T	p.S565S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL13RA1</i>	X:117892099	C	T	p.T190T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL13RA1</i>	X:117895252	C	T	p.Y276Y	1/1976	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL15RA</i>	10:6002496	T	C	p.T139T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL15RA</i>	10:6008163	C	G	p.V76V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL15RA</i>	10:6008268	G	A	p.H41H	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL16</i>	15:81517983	G	A	p.S81S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL16</i>	rs370528528	15:81592403	C	T	p.S211S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17F</i>	6:52101759	G	A	p.C154C	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RA</i>	22:17578832	C	T	p.D103D	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RA</i> rs139716919	22:17588657	C	T	p.T362T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RA</i>	22:17589465	C	T	p.R452R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RA</i>	22:17590197	G	C	p.L696L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RA</i>	22:17590434	C	G	p.L775L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18R1</i>	2:102984478	G	A	p.E84E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18R1</i>	2:102988512	A	G	p.K134K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18R1</i>	2:102998099	G	T	p.P215P	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18R1</i> rs150063521	2:103001420	G	A	p.S257S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18R1</i>	2:103003327	A	G	p.P272P	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18R1</i> rs371019881	2:103006655	G	A	p.T363T	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18RA1</i>	2:103053704	C	T	p.N204N	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	

<i>IL18RA1</i>	2:103068242	T	C	p.I467I	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL19</i>	rs374799009	1:207010076	C	T	p.H23H	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RAP</i>	3:190322041	A	G	p.S63S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RAP</i>	rs367975332	3:190366470	G	A	p.S563S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	2:102957164	C	T	p.H162H	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RL1</i>	2:102959790	G	A	p.E295E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RL1</i>	2:102959862	T	C	p.S319S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RL1</i>	rs113360315	2:102968243	G	A	p.K511K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL2</i>	2:102805564	T	C	p.N29N	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL2</i>	4:123377332	C	T	p.R58R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL22RA1</i>	1:24454740	C	T	p.E187E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL23R</i>	1:67635140	G	A	p.R62R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL25</i>	14:23844876	C	T	p.H91H	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL2RA</i>	10:6061846	G	A	p.L214L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL2RB</i>	rs200663995	22:37524559	C	G	p.L411L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL2RB</i>	22:37524730	C	T	p.S354S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL2RB</i>	22:37524754	G	A	p.P346P	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL3</i>	rs373333851	5:131396414	C	T	p.P5P	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL34</i>	rs374324186	16:70690934	G	A	p.S104S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL34</i>	.	16:70691018	C	A	p.G132G	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL36RN</i>	2:113820068	A	G	p.E94E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL36RN</i>	2:113820218	C	T	p.A144A	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL5</i>	.	5:131878792	A	G	p.H57H	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL5RA</i>	3:3137034	A	G	p.H268H	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL5RA</i>	rs188473701	3:3144434	T	C	p.K51K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL12RB2</i>	rs554412658	1:67838305	C	T	spliceSite	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17RA</i>	.	22:17581374	A	G	spliceSite	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	2:102955510	A	G	spliceSite	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL24</i>	1:207076317	T	A	spliceSite	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RL1</i>	2:102968184	C	T	p.Q492*	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL4R</i>	16:27372111	C	T	p.R292*	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL10</i>	1:206945663	T	C	p.M40V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL10RA</i>	11:117859124	T	A	p.V32E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL10RA</i>	11:117869469	C	T	p.R284C	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL10RA</i>	11:117869752	G	T	p.S378I	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL10RA</i>	11:117870057	T	A	p.C480S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL11RA</i>	9:34657047	C	T	p.P116L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL11RA</i>	9:34658678	A	G	p.T270A	1/1970	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.05	
<i>IL11RA</i>	9:34661484	C	G	p.P420A	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL12A</i>	rs371345224	3:159708052	C	T	p.H73Y	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL12RB1</i>	rs377441024	19:18193038	C	T	p.R54Q	1/1976	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL12RB2</i>	1:67786103	T	G	p.W18G	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL12RB2</i>	1:67787516	T	C	p.L103P	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL12RB2</i>	1:67838357	C	A	p.S536R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL12RB2</i>	1:67861294	C	T	p.P704L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL13</i>	5:131993909	G	T	p.A11S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL13</i>	5:131995441	T	A	p.I85N	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL13</i>	5:131995957	G	A	p.E142K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL13RA1</i>	X:117883664	C	A	p.H137Q	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL13RA2</i>	X:114245366	G	C	p.Q183E	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL15RA</i>	10:5995119	G	A	p.P248L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL16</i>	15:81517914	C	A	p.H58Q	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL16</i>	15:81565480	T	C	p.I242T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL16</i>	15:81571939	G	A	p.R302H	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	

<i>IL16</i>	.	15:81600964	G	A	p.S574N	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL16</i>	.	15:81601014	A	T	p.M591L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17F</i>	rs147873628	6:52101830	G	A	p.R131W	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17F</i>	.	6:52103675	A	G	p.V36A	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17RA</i>	rs140367455	22:17583083	G	A	p.R218H	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17RA</i>	.	22:17589411	G	C	p.Q434H	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17RA</i>	.	22:17590240	G	C	p.A711P	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17RB</i>	.	3:53892800	G	A	p.V268I	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL18</i>	.	11:112020804	C	T	p.D73N	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL18R1</i>	rs11465635	2:102998083	G	A	p.R210H	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL18R1</i>	.	2:103013278	A	C	p.M520L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL18RAI</i>	.	2:103039792	G	A	p.G19R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL18RAI</i>	.	2:103063607	C	T	p.H384Y	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL18RAI</i>	rs568540443	2:103067377	C	A	p.S427Y	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL19</i>	.	1:207010009	T	A	p.M1K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1R1</i>	rs2228139	2:102781649	C	G	p.A124G	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1R2</i>	rs149708591	2:102626054	G	A	p.R33K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1R2</i>	rs111549937	2:102636265	C	T	p.R227C	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1R2</i>	.	2:102644816	T	C	p.W387R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RAP</i>	.	3:190363599	G	A	p.C438Y	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RAP</i>	.	3:190366138	G	A	p.E453K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RAP</i>	rs34661910	3:190366198	G	A	p.V473M	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RAP1</i>	.	X:104478636	A	G	p.D164G	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	.	2:102955411	C	T	p.T59I	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	.	2:102957220	G	C	p.C181S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	.	2:102958721	C	G	p.P217A	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	.	2:102959637	G	T	p.S275I	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	.	2:102965682	G	T	p.G421W	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	rs150294315	2:102968026	G	A	p.R439Q	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL2</i>	.	2:102818040	C	T	p.R172W	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL2</i>	.	2:102849550	G	T	p.L421F	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL2</i>	.	2:102851407	G	T	p.V450F	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RN</i>	rs137932510	2:113877652	A	G	p.Y7C	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL22RA1</i>	.	1:24447434	G	A	p.P529L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL22RA1</i>	.	1:24447957	C	T	p.A355T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL22RA1</i>	.	1:24454760	C	T	p.G181R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL22RA1</i>	rs569579760	1:24460816	A	G	p.V139A	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL23A</i>	.	12:56732938	C	T	p.S37L	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL23A</i>	.	12:56733747	G	C	p.E143D	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL23R</i>	.	1:67648594	C	T	p.A148V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL23R</i>	.	1:67666529	G	A	p.A201T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL23R</i>	.	1:67672723	A	G	p.T261K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL23R</i>	.	1:67702426	A	C	p.H329P	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL25</i>	.	14:23842494	C	T	p.T40I	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL2RA</i>	rs575199237	10:6063583	C	A	p.M147I	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL2RA</i>	.	10:6063636	G	A	p.P130S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL2RB</i>	.	22:37524409	T	A	p.E461D	1/1976	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL2RB</i>	.	22:37524470	G	A	p.P441L	1/1970	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.05
<i>IL2RB</i>	rs538933768	22:37539601	G	T	p.Q55K	1/1980	0/1594	1	0.41	1	NA	0/902	0/622	1	0.73	1	1.06
<i>IL3</i>	.	5:131398474	C	G	p.A150G	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL32</i>	.	16:3117394	T	C	p.M11T	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL34</i>	.	16:70680857	C	T	p.R3W	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL34</i>	.	16:70688501	C	T	p.T30M	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL34</i>	.	16:70693942	C	T	p.P194L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06

<i>IL36RN</i>	2:113820154	C	T	p.T123M	1/1976	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL5</i>	5:131879143	G	C	p.L10V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL5RA</i>	3:3118236	A	C	p.I357S	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL6</i>	7:22767081	C	T	p.A13V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL6</i>	7:22768376	T	G	p.L92R	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL6R</i>	1:154407071	G	A	p.A179K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL6R</i>	1:154407072	C	A	p.A179K	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL6R</i>	rs143779412	1:154407101	A	G	p.I189V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL6R</i>	1:154407120	C	A	p.A195D	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL6R</i>	1:154407532	T	A	p.V236D	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL6R</i>	rs146099074	1:154437694	G	A	p.P415L	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL8</i>	4:74607303	A	G	p.I37V	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL8</i>	4:74607690	G	C	p.E75D	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL10</i>	1:206943143	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL10</i>	1:206944591	C	T	intron	1/1978	0/1594	1	0.41	1	NA	0/902	0/622	1	0.73	1	1.06	
<i>IL10</i>	1:206944644	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL10RA</i>	11:117860126	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL10RA</i>	rs4252308	11:117863938	C	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL10RB</i>	21:34655368	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL11RA</i>	9:34656970	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL11RA</i>	9:34657176	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL11RA</i>	9:34661438	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL12A</i>	3:159707910	G	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL12RB1</i>	19:18193112	T	A	intron	1/1972	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL12RB2</i> rs373462111	1:67792547	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL12RB2</i>	1:67795246	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL13RA1</i>	X:117883770	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL13RA2</i>	X:114248289	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL15</i>	4:142641605	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL15</i>	4:142643180	A	G	intron	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL15RA</i>	rs8177784	10:6001673	G	A	intron	1/1978	0/1594	1	0.41	1	NA	0/904	0/620	1	0.73	1	1.06
<i>IL16</i>	rs367769835	15:81598893	G	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL16</i>	15:81600929	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL17RB</i>	rs374807881	3:53882653	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17RB</i>	rs201038965	3:53883662	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL17RB</i>	3:53891028	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18</i>	rs569845224	11:112020992	A	G	intron	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL18R1</i>	2:102984571	T	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18R1</i>	2:102998044	C	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL18RA1</i> rs11465722	2:103063489	C	T	intron	1/1974	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL19</i>	1:207010236	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1A</i>	2:113540278	C	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1A</i>	2:113541240	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1B</i>	rs55991300	2:113593859	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1R2</i>	2:102625960	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1R2</i>	2:102642722	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RAP</i>	3:190282011	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RAP</i>	3:190362022	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RAP</i>	3:190363658	A	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RAP1</i>	X:104999159	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RL1</i>	2:102954816	T	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RL1</i>	2:102954832	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
<i>IL1RL1</i>	rs114989917	2:102958648	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
<i>IL1RL1</i>	rs62152661	2:102959646	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06

IL1RL1	2:102964574	T	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
IL1RL1	2:102967968	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06	
IL1RL2	rs534276712	2:102851309	G	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL22RA1	rs577109221	1:24449782	G	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL23A	.	12:56733665	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL23R	.	1:67666387	C	A	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL24	.	1:207075476	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL26	.	12:68595781	G	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL2RB	rs372433805	22:37524910	G	T	intron	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL32	.	16:3117975	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL34	.	16:70693689	T	G	intron	1/1976	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL4R	.	16:27364048	T	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL4R	rs201977867	16:27373535	T	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL5RA	.	3:3118151	G	C	intron	1/1978	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL5RA	.	3:3118207	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL5RA	rs372390104	3:3131844	A	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL5RA	.	3:3132019	C	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL5RA	.	3:3136916	G	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL5RA	rs545278747	3:3139530	A	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL6	.	7:22766916	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL6	.	7:22769078	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL6R	rs539803011	1:154401943	C	T	intron	1/1976	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL6R	.	1:154406938	G	A	intron	1/1976	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL6R	.	1:154420540	C	T	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL7	.	8:79648655	T	C	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06
IL7	.	8:79648681	A	G	intron	1/1980	0/1596	1	0.41	1	NA	0/904	0/622	1	0.73	1	1.06

Chr, Chromosome; Ref, Reference allele; Alt, Alternate allele; OR, Odds ratio; Ctrl, control; NA, not available or not applicable.

AF (CHB in 1000G), Allele frequency (AF) of alternative allele was based on Chinese Han in Beijing (CHB) of the 1000 Genomes project data.

LL, Lepromatous leprosy; TT, tuberculoid leprosy; MB, multibacillary leprosy; PB, paucibacillary leprosy.

^s P-values were calculated by using the Chi-square test or the Fisher's exact test when the number of samples was smaller than five.

P_{adj}, gender adjusted P-value.

OR_{adj}, gender adjusted odds ratio.

Table S2. eQTL effects of regulatory *IL* variants in GTEx database

SNP	Gene	P-Value	NES	Tissue
rs17855750 (IL27, p.S59A)	<i>RP11-1348G14.4</i>	0.000022	0.46	Adipose - Subcutaneous
	<i>RP11-1348G14.4</i>	0.000051	0.43	Artery - Tibial
	<i>RP11-1348G14.6</i>	0.0002	-0.41	Skin - Sun Exposed (Lower leg)
	<i>RP11-435I10.5</i>	0.0000019	0.79	Testis
	<i>RP11-435I10.5</i>	0.000099	0.47	Thyroid
	<i>RP11-666O2.5</i>	9.70E-08	1	Uterus
	<i>RP11-666O2.5</i>	1.40E-07	1.1	Ovary
	<i>RP11-666O2.5</i>	2.80E-07	1.1	Small Intestine - Terminal Ileum
	<i>RP11-666O2.5</i>	0.000013	0.82	Testis
	<i>SULT1A2</i>	1.90E-09	-0.56	Adipose - Visceral (Omentum)
	<i>SULT1A2</i>	0.0000013	-0.42	Nerve - Tibial
	<i>SULT1A2</i>	0.0000077	-0.5	Artery - Tibial
	<i>SULT1A2</i>	0.000011	-0.64	Esophagus - Gastroesophageal Junction
	<i>SULT1A2</i>	0.000076	-0.39	Whole Blood
	<i>SULT1A2</i>	0.00011	-0.22	Thyroid
	<i>SULT1A2</i>	0.00021	-0.37	Muscle - Skeletal
	<i>TUFM</i>	0.000052	-0.17	Skin - Sun Exposed (Lower leg)
	<i>TUFM</i>	0.000082	-0.23	Whole Blood
rs1420098 (<i>IL18R1</i> , intron)	<i>AC007278.2</i>	0.000038	0.081	Whole Blood
	<i>AC007278.3</i>	4.30E-09	-0.35	Spleen
	<i>AC007278.3</i>	7.20E-09	-0.13	Whole Blood
	<i>AC007278.3</i>	1.70E-08	-0.23	Thyroid
	<i>AC007278.3</i>	4.50E-07	-0.19	Adipose - Visceral (Omentum)
	<i>AC007278.3</i>	0.000007	-0.4	Brain - Putamen (basal ganglia)
	<i>AC007278.3</i>	0.000013	-0.14	Lung
	<i>AC007278.3</i>	0.000038	-0.34	Brain - Caudate (basal ganglia)
	<i>FAM183DP</i>	0.000086	-0.1	Whole Blood
	<i>IL18R1</i>	2.40E-11	-0.45	Brain - Caudate (basal ganglia)
	<i>IL18R1</i>	2.00E-10	-0.51	Brain - Cerebellar Hemisphere
	<i>IL18R1</i>	4.80E-09	0.16	Artery - Tibial
	<i>IL18R1</i>	8.70E-09	-0.42	Brain - Frontal Cortex (BA9)
	<i>IL18R1</i>	2.80E-08	-0.47	Brain - Anterior cingulate cortex (BA24)
	<i>IL18R1</i>	3.00E-08	0.2	Nerve - Tibial
	<i>IL18R1</i>	1.20E-07	-0.44	Brain - Putamen (basal ganglia)
	<i>IL18R1</i>	2.10E-07	-0.33	Brain - Nucleus accumbens (basal ganglia)
	<i>IL18R1</i>	5.90E-07	-0.45	Brain - Hippocampus
	<i>IL18R1</i>	0.000006	0.12	Adipose - Subcutaneous
	<i>IL18R1</i>	0.000013	-0.43	Brain - Substantia nigra
	<i>IL18R1</i>	0.000014	-0.34	Brain - Cerebellum
	<i>IL18R1</i>	0.000017	0.11	Adipose - Visceral (Omentum)
	<i>IL18R1</i>	0.000042	0.14	Skin - Not Sun Exposed (Suprapubic)
	<i>IL18R1</i>	0.000048	0.15	Artery - Aorta
	<i>IL18R1</i>	0.000083	0.096	Breast - Mammary Tissue
	<i>IL18RAP</i>	2.70E-10	0.24	Skin - Sun Exposed (Lower leg)
	<i>IL18RAP</i>	3.10E-10	0.22	Breast - Mammary Tissue
	<i>IL18RAP</i>	7.70E-10	0.28	Skin - Not Sun Exposed (Suprapubic)
	<i>IL18RAP</i>	3.40E-07	0.18	Adipose - Subcutaneous
	<i>IL18RAP</i>	0.000033	0.15	Colon - Transverse
	<i>IL18RAP</i>	0.000079	0.07	Whole Blood
	<i>IL18RAP</i>	0.000097	0.17	Cells - Cultured fibroblasts
	<i>IL1RL1</i>	2.70E-24	-0.34	Lung
	<i>IL1RL1</i>	3.00E-11	-0.4	Brain - Nucleus accumbens (basal ganglia)
	<i>IL1RL1</i>	9.30E-10	-0.47	Brain - Putamen (basal ganglia)

	<i>IL1RL1</i>	3.20E-09	-0.4	Brain - Caudate (basal ganglia)
	<i>IL1RL1</i>	9.60E-07	-0.38	Brain - Cerebellar Hemisphere
	<i>IL1RL1</i>	9.60E-07	-0.36	Brain - Frontal Cortex (BA9)
	<i>IL1RL1</i>	0.000001	-0.35	Brain - Cerebellum
	<i>IL1RL1</i>	0.0000026	-0.32	Brain - Cortex
	<i>IL1RL1</i>	0.0000081	-0.33	Brain - Hypothalamus
	<i>IL1RL1</i>	0.000015	-0.38	Brain - Anterior cingulate cortex (BA24)
	<i>IL1RL1</i>	0.000015	-0.39	Brain - Hippocampus
	<i>IL1RL1</i>	0.00002	-0.37	Brain - Amygdala
	<i>IL1RL1</i>	0.000096	-0.16	Esophagus - Mucosa
	<i>SLC9A4</i>	2.00E-09	0.36	Testis
rs2243188 (<i>IL19</i> , intron)	<i>IL19</i>	3.60E-21	0.62	Testis
	<i>IL20</i>	4.90E-12	0.61	Testis
rs3917322 (<i>IL1R1</i> , 3'-utr)	<i>SLC9A2</i>	0.0000037	1.6	Brain - Spinal cord (cervical c-1)
rs112972404 (<i>IL1R1</i> , intron)	<i>SLC9A2</i>	0.0000037	1.6	Brain - Spinal cord (cervical c-1)
rs2229238 (<i>IL6R</i> , 3'-utr)	<i>IL6R</i>	7.00E-08	-0.33	Testis
	<i>IL6R</i>	1.50E-07	-0.094	Whole Blood
	<i>IL6R</i>	0.0000011	-0.14	Artery - Tibial
	<i>IL6R</i>	0.0000052	-0.23	Colon - Transverse
	<i>NUP210L</i>	0.0002	-0.26	Artery - Tibial
	<i>SHE</i>	0.0000027	-0.21	Testis
	<i>TDRD10</i>	5.30E-37	0.42	Thyroid
	<i>TDRD10</i>	1.40E-31	0.43	Lung
	<i>TDRD10</i>	6.80E-29	0.37	Adipose - Visceral (Omentum)
	<i>TDRD10</i>	1.00E-18	0.29	Esophagus - Muscularis
	<i>TDRD10</i>	4.40E-17	0.26	Esophagus - Mucosa
	<i>TDRD10</i>	3.20E-16	0.26	Breast - Mammary Tissue
	<i>TDRD10</i>	6.30E-14	0.27	Colon - Sigmoid
	<i>TDRD10</i>	3.40E-12	0.39	Spleen
	<i>TDRD10</i>	4.00E-12	0.29	Nerve - Tibial
	<i>TDRD10</i>	4.30E-12	0.4	Adrenal Gland
	<i>TDRD10</i>	1.10E-11	0.21	Artery - Tibial
	<i>TDRD10</i>	2.40E-11	0.27	Artery - Aorta
	<i>TDRD10</i>	9.20E-11	0.4	Pituitary
	<i>TDRD10</i>	1.30E-10	0.23	Colon - Transverse
	<i>TDRD10</i>	3.40E-10	0.42	Liver
	<i>TDRD10</i>	5.50E-10	-0.19	Testis
	<i>TDRD10</i>	1.90E-08	0.22	Esophagus - Gastroesophageal Junction
	<i>TDRD10</i>	2.10E-08	0.24	Artery - Coronary
	<i>TDRD10</i>	7.70E-08	0.18	Heart - Atrial Appendage
	<i>TDRD10</i>	8.10E-08	0.18	Skin - Not Sun Exposed (Suprapubic)
	<i>TDRD10</i>	9.60E-08	0.18	Heart - Left Ventricle
	<i>TDRD10</i>	4.60E-07	0.32	Small Intestine - Terminal Ileum
	<i>TDRD10</i>	7.90E-07	0.34	Brain - Cerebellum
	<i>TDRD10</i>	0.000002	0.2	Stomach
	<i>TDRD10</i>	0.0000025	0.21	Muscle - Skeletal
	<i>TDRD10</i>	0.000016	0.27	Brain - Cortex
	<i>TDRD10</i>	0.000018	0.15	Adipose - Subcutaneous
	<i>TDRD10</i>	0.00025	0.1	Skin - Sun Exposed (Lower leg)
	<i>UBE2Q1-ASI</i>	0.0000056	0.22	Testis
rs8031107 (<i>IL16</i> , p.Q469Q)	<i>IL16</i>	5.10E-07	0.16	Adipose - Subcutaneous
	<i>IL16</i>	0.000031	0.12	Skin - Sun Exposed (Lower leg)
	<i>IL16</i>	0.000056	0.16	Heart - Atrial Appendage
	<i>RP11-76I14.4</i>	2.00E-11	0.3	Skin - Sun Exposed (Lower leg)
	<i>RP11-76I14.4</i>	1.70E-08	0.34	Esophagus - Mucosa
	<i>RP11-76I14.4</i>	9.60E-08	0.4	Liver

<i>RP11-76114.4</i>	0.0000017	0.22	Skin - Not Sun Exposed (Suprapubic)
<i>RP11-76114.4</i>	0.000014	0.29	Spleen
<i>RP11-76114.4</i>	0.000051	0.2	Lung

NES, normalized effect size; data retrieved from GTEx database (<https://gtexportal.org/home/>).