

Supplementary Table 1

NO.	Polymorphism	Position	Gene	Coordinate ensembl R3.4e	% genotyping failure	HWE CHI	HWE p	Freq SE(freq)	Major allele	Minor allele	Ancestral allele	Disease association	CNS region	Altered TF binding
1	rs17674015			131437995	1.6	0.01	0.94	0.29	0.04	G	T			NFAT-1 (WT)
2	rs12656759			131443827	3.1	0.01	0.93	0.50	0.04	G	A	G		runt-factor AML-1 (WT)
3	rs587759	Promoter	IL3	131466896	3.1	0.01	0.91	0.20	0.04	G	A	G		
4	rs151791	Promoter	IL3	131471331	17.2	1.98	0.16	0.05	0.02	G	A	G		
5	rs31460	Promoter	IL3	131472548	10.9	0.05	0.82	0.26	0.04	C	T			cellular and viral coxsack box (WT)
6	rs40401	Exon	IL3	131472694	10.9	0.05	0.82	0.26	0.04	C	T			
7	rs31481	Intron	IL3	131473418	10.9	0.01	0.91	0.21	0.04	G	A			nfat-1 and AREB (WT)
8	rs2069803	3'UTR	IL3	131476649	18.8	0.82	0.37	0.32	0.04	T	C			
9	rs246844	3'UTR	IL3	131477550	0.0	0.06	0.81	0.22	0.04	G	A			ARE B6 (WT)
10	rs3091338	3'UTR	IL3	131478954	10.9	0.06	0.81	0.35	0.04	C	T	C		
11	rs31473	3'UTR	IL3	131480652	1.6	0.10	0.75	0.28	0.04	A	T			
12	rs721121	Enhancer	CSF2	131482649	3.1	0.25	0.62	0.39	0.04	T	G	T		
13	rs27348	3'UTR	CSF2	131483355	0.0	0.50	0.48	0.27	0.04	T	A			
14	rs2069614	Promoter	CSF2	131483817	4.7	0.52	0.47	0.38	0.04	T	C			
15	rs2069616	Promoter	CSF2	131484293	1.6	0.59	0.44	0.37	0.04	A	G			runt factor AML-1 (WT)
16	rs1469149	Promoter	CSF2	131485058	1.6	0.27	0.61	0.34	0.04	A	C			zinc finger (MT)
17	rs743594	Intron	CSF2	131487095	14.1	0.40	0.53	0.32	0.04	T	C	T		
18	rs25981	Intron	CSF2	131497354	1.6	0.01	0.91	0.23	0.04	G	T			
19	rs25882	exon	CSF2	131485767	4.7	0.51	0.47	0.27	0.04	T	C			Gata binding factor 1 (MT)
20	rs25883	3'UTR	CSF2	131488148	14.1	0.08	0.77	0.26	0.04	G	A			areb6 (WT / MT)
21	rs25884	3'UTR	CSF2	131488454	10.9	0.01	0.93	0.25	0.04	A	G			
22	rs27438	3'UTR	CSF2	131489471	0.0	0.35	0.56	0.26	0.04	G	A			
23	rs2301579			131629556	4.7	0.93	0.33	0.41	0.04	G	T	G	IBD	
24	rs7727544			131666750	7.8	1.21	0.27	0.40	0.04	A	G	G		
25	rs99896	Exon	RIL	131691598	3.1	0.06	0.80	0.10	0.03	G	C			
26	rs168381	Exon	RIL	131689210	0.0	0.13	0.72	0.10	0.03	T	G			
27	IGR3070a.1			131699052	4.7	0.14	0.71	0.07	0.02	G	A			
28	rs7705189			131699574	20.3	0.17	0.68	0.44	0.04	T	C	T	IBD	activator protein 4 (WT)
29	rs157572			131702328	0.0	0.75	0.39	0.38	0.04	C	G	G		
30	rs3761661			131704651	10.9	0.45	0.50	0.05	0.02	A	T	A		
31	IGR3081a.1			131707069	4.7	0.16	0.69	0.39	0.04	T	G	T	IBD	
32	IGR3086a.1			131714541	15.6	0.06	0.91	0.44	0.04	A	T	A		
33	rs2073538	Exon	SLC22A5	131725738	3.1	0.14	0.71	0.23	0.02	A	T			
34	rs272842	Intron	SLC22A4	131732733	4.7	0.16	0.69	0.39	0.04	G	A	A		icf11/kcr-1/nrf1 (WT)
35	rs270602			131732916	6.3	0.20	0.65	0.39	0.04	G	A	A		
36	rs273915	Intron	SLC22A4	131736335	1.6	0.04	0.85	0.33	0.04	C	G	C		
37	rs273914			131736648	10.9	0.40	0.53	0.39	0.04	A	T	T		AP1 binding site (WT)
38	IGR3018a.2			131738724	12.5	0.45	0.50	0.05	0.02	T	G	T		
39	rs272893	Exon	SLC22A4	131739278	4.7	0.09	0.77	0.36	0.04	G	A	T		activator protein 4 (MT)
40	rs254615	Intron	SLC22A5	131740355	3.1	0.04	0.85	0.31	0.04	C	T			
41	rs272879	Exon	SLC22A4	131746762	4.7	0.01	0.93	0.37	0.04	C	G	C		
42	rs272874	Intron	SLC22A4	131751262	4.7	0.16	0.69	0.39	0.04	T	C	C		
43	IGR2292a.1			131762696	3.1	0.14	0.71	0.06	0.02	A	C	A		
44	rs4705938			131770293	9.4	0.03	0.85	0.42	0.04	A	G	A	IBD	
45	rs2631362			131783509	12.5	0.04	0.84	0.29	0.04	T	C	T		
46	rs562460	Intron	SLC22A5	131786311	1.6	0.01	0.93	0.32	0.04	C	T			
47	rs274567	Intron	SLC22A5	131790325	1.6	0.15	0.70	0.38	0.04	C	T			
48	rs1762208			131792267	9.4	0.03	0.85	0.42	0.04	C	T	C	IBD	EKLF/ activator protein 4 (WT)
49	IGR2225a.1			131798906	1.6	0.14	0.71	0.06	0.02	C	A	C		
50	rs274559	E/I boundary	SLC22A5	131796286	1.6	0.15	0.70	0.38	0.04	T	C	C		
51	rs274555	Intron	SLC22A5	131799167	6.3	0.06	0.81	0.38	0.04	G	A			
52	rs274550			131804928	1.6	0.03	0.87	0.25	0.04	A	C			nfat1 (MT)
53	rs274549	Intron	SLC22A5	131805334	0.0	0.01	0.92	0.26	0.04	G	T	C		
54	rs274548	Intron	SLC22A5	131807023	4.7	0.38	0.59	0.10	0.03	C	T			
55	rs14701	Exon	SLC22A5	131807139	10.9	0.02	0.87	0.27	0.04	C	A			c-abl src type TK(WT)
56	rs12517950			131807543	1.6	0.04	0.85	0.35	0.04	T	C	T		areb6 (WT)
57	rs1768995			131808991	9.4	0.04	0.84	0.16	0.03	C	T	C		
58	rs11739135			131809614	10.9	0.01	0.94	0.31	0.04	C	G	G	IBD	
59	rs1016988			131820790	3.1	0.01	0.91	0.20	0.04	A	G	A		
60	rs4875253			131852722	3.1	0.01	0.92	0.35	0.04	T	C	T		gata binding factor 1 (MT)
61	rs2521869			131860910	0.0	0.00	0.94	0.37	0.04	C	A		IBD	
62	rs252044			131868052	0.0	0.03	0.86	0.35	0.04	G	A	G		
63	rs4705950			131869502	17.2	3.64	0.06	0.40	0.04	G	A		IBD	
64	rs252047			131872098	0.0	0.01	0.92	0.23	0.04	C	A	C		
65	rs2706393			131872283	3.1	0.03	0.87	0.23	0.04	C	T	C		
66	IGR2063b.1			131878677	9.9	0.09	0.77	0.39	0.04	G	C	G	IBD	cf11/kcrr1/nrf1 (MT)
67	rs252057			131878163	10.9	0.01	0.94	0.36	0.04	G	C	G	IBD	
68	rs248116			131890359	0.0	0.02	0.94	0.11	0.03	C	T		IBD	heat shock factor 1 (MT)
69	rs7719499			131890307	0.0	1.45	0.23	0.30	0.04	G	C	C		smad3 (WT)
70	rs839	Exon	IRF	131895342	0.0	1.02	0.31	0.30	0.04	C	T	C	JIA	
71	rs2070729			131896137	3.1	0.04	0.84	0.48	0.04	C	A	A		
72	rs2070727			131896491	3.1	1.64	0.20	0.30	0.04	C	A	C		
73	rs10068129	Intron	IRF	131897463	0.0	1.02	0.31	0.30	0.04	C	T	C		
74	rs2070726			131897954	0.0	1.80	0.18	0.31	0.04	C	A	C		
75	rs2070725			131898094	7.8	1.17	0.28	0.29	0.04	G	T	C		
76	rs2706384	Promoter	IRF	131903096	1.6	1.31	0.25	0.30	0.04	A	C			mz1 (MT)
77	rs2549005			131903407	3.1	1.64	0.20	0.30	0.04	G	A	C		
78	IGR2008a.1			131903994	4.7	0.18	0.67	0.48	0.04	C	T	T		
79	rs2549004			131904041	3.1	2.82	0.09	0.31	0.04	C	G	G		
80	rs736801			131908815	6.3	0.09	0.77	0.37	0.04	C	T	C		
81	rs2706390			131918497	4.7	0.84	0.36	0.16	0.03	C	A	C		sox 5 (WT)
82	rs2706391			131919523	1.6	0.49	0.48	0.17	0.03	T	C	T		
83	rs2743562	3'UTR	IL5	131946599	4.7	2.91	0.09	0.48	0.04	C	T	C		
84	rs2069812	Promoter	IL5	131956132	15.6	0.01	0.92	0.32	0.04	C	T			
85	rs17166050			131991430	7.8	4.47	0.03	0.19	0.03	C	T			MyT1 zinc finger TF (MT)
86	rs12187537			132016121	4.7	3.93	0.05	0.19	0.03	A	C			ccat/enhancer bp beta (WT)
87	rs3798135			132041325	0.0	2.37	0.12	0.20	0.04	G	A	G		cut-like protein (WT)
88	rs1800925	Promoter	IL13	132069025	6.3	1.33	0.25	0.19	0.03	G	A	A	asthma	
89	rs2068960	Intron	IL13	132070651	10.9	0.08	0.78	0.09	0.03	C	A	A		
90	rs1295886	E/I boundary	IL13	132073359	6.3	1.53	0.22	0.25	0.04	G	A	A		upstream stimulating factor (WT)
91	rs20541	Exon	IL13	132072180	0.0	0.05	0.82	0.23	0.04	C	T	C	asthma	
92	rs1295885	Exon	IL13	132072661	0.0	0.05	0.82	0.23	0.04	C	T	C	asthma	
93	rs848	Exon	IL13	132072716	3.1	0.09	0.77	0.23	0.04	G	T	T		
94	rs847	Exon	IL13	132072885	4.7	0.20	0.66	0.22	0.04	C	T	T		
95	rs20699757	3'UTR	IL13	132074629	7.8	0.03	0.85	0.08	0.02	G	A	G		
96	rs2243204	3'UTR	IL13	132075710	0.0	0.13	0.72	0.10	0.03	C	T	T		
97	rs2243208	Intron	IL4	132076365	14.1	0.02	0.79	0.15	0.03	C	T	A		
98	rs2243210	3'UTR	IL13	132077602	7.8	0.03	0.85	0.08	0.02	G	A	A		
99	rs2243211	Promoter	IL4	132077638	18.8	0.04	0.85	0.09	0.02	C	A	C		
100	rs2243219	Promoter	IL4	132078341	0.0	0.03	0.87	0.09	0.02	A	G	G		
101	rs2243228	Promoter	IL4	132080579	0.0	0.03	0.87	0.09	0.02	A	C	A		
102	rs22													