

ESM_2 Table of all single nucleotide variants identified in the *GABRA4* region

Variant	dbSNP138 ID	Functional Category	ASD Cases MAF	Controls MAF	GERP Score
chr4.hg19:46918218G>T	rs77362300	intergenic	0.1296	0.1574	-0.6
chr4.hg19:46918242A>C	rs7693882	intergenic	0.3659	0.3182	-2.42
chr4.hg19:46918337A>G	rs10032182	intergenic	0.3659	0.3273	2.97
chr4.hg19:46918455T>G	.	intergenic	0	0.009091	-2.39
chr4.hg19:46918800A>G	.	intergenic	0.02439	0	-0.759
chr4.hg19:46919089T>C	rs6815290	intergenic	0.3659	0.3273	3.09
chr4.hg19:46919327G>T	rs77352552	intergenic	0.02439	0.04545	3.27
chr4.hg19:46919452T>C	rs185137287	intergenic	0.006098	0	-9.79
chr4.hg19:46919749T>G	rs11722432	intergenic	0.3659	0.3273	0.728
chr4.hg19:46919774A>T	rs9990965	intergenic	0.3659	0.3273	-3.08
chr4.hg19:46920789G>A	rs10004359	intergenic	0.3659	0.3273	1.43
chr4.hg19:46921142A>G	.	UTR3	0	0.009091	-0.556
chr4.hg19:46921546C>A	.	UTR3	0.006098	0	-5.72
chr4.hg19:46921954C>T	rs7691100	UTR3	0.3659	0.3273	-1.36
chr4.hg19:46922096A>C	.	UTR3	0.006098	0	-0.295
chr4.hg19:46922107T>C	rs7678338	UTR3	0.3659	0.3273	0.118
chr4.hg19:46922553A>G	.	UTR3	0	0.009091	0.472
chr4.hg19:46922688C>T	rs10033500	UTR3	0.3642	0.3241	-0.121
chr4.hg19:46922930G>T	.	UTR3	0.02439	0	1.06
chr4.hg19:46922950A>G	rs9291296	UTR3	0.3659	0.3273	1.07
chr4.hg19:46923108A>C	rs9291297	UTR3	0.3659	0.3273	-4.41
chr4.hg19:46923426A>G	.	UTR3	0	0.009091	-0.185
chr4.hg19:46923434A>C	.	UTR3	0.006098	0	0.531
chr4.hg19:46923579A>G	rs16859680	UTR3	0.006098	0	0.852
chr4.hg19:46924311G>A	.	UTR3	0	0.009091	1.24
chr4.hg19:46924725C>T	rs114810504	UTR3	0.01829	0.02727	-0.392
chr4.hg19:46925000G>A	rs1512140	UTR3	0.3659	0.3273	0.199
chr4.hg19:46925095T>G	rs55731723	UTR3	0.0122	0.03636	1.47
chr4.hg19:46925813A>G	rs953380	UTR3	0.3659	0.3273	2.44
chr4.hg19:46926777T>G	rs1512139	UTR3	0.3642	0.3273	-0.465
chr4.hg19:46926837G>A	rs9291298	UTR3	0.3659	0.3273	1.17
chr4.hg19:46926840T>C	.	UTR3	0.0122	0	1.06
chr4.hg19:46927124T>C	rs17599074	UTR3	0.3544	0.3333	-0.613
chr4.hg19:46927138G>A	rs139379428	UTR3	0	0.01818	-4.89
chr4.hg19:46927145T>G	rs1398174	UTR3	0.359	0.3426	3.36
chr4.hg19:46927765T>C	.	UTR3	0	0.01852	-0.261
chr4.hg19:46927774T>C	rs200726027	UTR3	0.006173	0.009091	0
chr4.hg19:46927886C>T	rs10004905	UTR3	0.3506	0.3426	-1.52
chr4.hg19:46928029A>G	rs4637372	UTR3	0.359	0.3426	0.158
chr4.hg19:46928152T>C	rs149904224	UTR3	0.006173	0	-4.15
chr4.hg19:46928156A>G	.	UTR3	0.006098	0	-1.22
chr4.hg19:46928746A>T	rs6447517	UTR3	0.3608	0.3333	-2.92
chr4.hg19:46928834C>T	rs17599102	UTR3	0.3442	0.3333	-0.128
chr4.hg19:46929004G>A	rs141391324	UTR3	0.006098	0.009091	-4.78

chr4.hg19:46929433G>T	.	UTR3	0.006098	0	1.16
chr4.hg19:46929668G>C	rs7660336	UTR3	0.35	0.3426	-2.65
chr4.hg19:46929885G>T	.	UTR3	0.006098	0.02727	-0.627
chr4.hg19:46929991A>G	.	UTR3	0.006098	0	2.59
chr4.hg19:46930035C>A	rs371234747	UTR3	0	0.009091	3.48
chr4.hg19:46930104A>G	rs141747680	UTR3	0.01875	0.02727	0.204
chr4.hg19:46931054T>A	rs1512138	intronic	0.3544	0.3426	-1.75
chr4.hg19:46931463C>G	rs116008237	intronic	0.006098	0.01818	0.542
chr4.hg19:46931651A>G	.	intronic	0.006098	0	-0.741
chr4.hg19:46931939G>C	rs184383940	intronic	0	0.009091	-2.57
chr4.hg19:46932206T>C	rs1512136	intronic	0.3544	0.3333	-9
chr4.hg19:46932672A>G	rs115643308	intronic	0.01829	0.01818	-1.57
chr4.hg19:46933123T>C	rs67128139	intronic	0.3563	0.3426	-0.855
chr4.hg19:46933241C>T	rs190152917	intronic	0.0122	0.009091	-0.291
chr4.hg19:46933310C>T	rs13138566	intronic	0.3544	0.3426	-0.623
chr4.hg19:46933966T>C	rs17641386	intronic	0.3544	0.3333	-1.43
chr4.hg19:46933990T>C	rs17599158	intronic	0.3563	0.3333	-3.35
chr4.hg19:46934014T>G	rs12508654	intronic	0.3563	0.3333	-3.48
chr4.hg19:46934233A>G	rs74994602	intronic	0.01829	0.009091	2.88
chr4.hg19:46934481A>G	rs10021503	intronic	0.3519	0.3333	-1.5
chr4.hg19:46934615C>T	rs138673560	intronic	0.006098	0.009091	-1.67
chr4.hg19:46934661T>C	.	intronic	0.006098	0	0.129
chr4.hg19:46935036A>C	rs35989353	intronic	0.3608	0.3426	0.565
chr4.hg19:46935051G>A	.	intronic	0	0.009091	1.01
chr4.hg19:46935292A>G	.	intronic	0.006098	0	2.22
chr4.hg19:46935354A>G	rs34026660	intronic	0	0.009091	3.51
chr4.hg19:46935791A>G	rs111742151	intronic	0	0.009091	-0.48
chr4.hg19:46936183A>G	rs188935567	intronic	0	0.009091	5.19
chr4.hg19:46936319T>G	.	intronic	0	0.009091	5.15
chr4.hg19:46936822C>T	rs1159396	intronic	0.358	0.3364	0.879
chr4.hg19:46936899A>G	rs6843462	intronic	0.358	0.3273	2.15
chr4.hg19:46937023C>T	rs75822667	intronic	0.03049	0.01818	-5.24
chr4.hg19:46937694G>T	rs147391393	intronic	0	0.01818	0.158
chr4.hg19:46937719A>G	.	intronic	0.006173	0	0.158
chr4.hg19:46937725G>A	rs1877398	intronic	0.3625	0.3273	0.158
chr4.hg19:46937797C>T	.	intronic	0	0.009091	0.475
chr4.hg19:46938408G>A	.	intronic	0	0.009091	-0.237
chr4.hg19:46938519G>A	rs12649623	intronic	0.358	0.3273	-0.237
chr4.hg19:46938725A>T	.	intronic	0.006098	0	2.15
chr4.hg19:46939088G>C	.	intronic	0	0.009091	-0.858
chr4.hg19:46939366T>C	.	intronic	0.01852	0	-1.34
chr4.hg19:46939651C>A	rs189857459	intronic	0.03125	0.009091	-0.309
chr4.hg19:46939779T>C	.	intronic	0.00625	0	-3.49
chr4.hg19:46940376T>C	rs713287	intronic	0.3537	0.3273	-1.17
chr4.hg19:46940756G>A	.	intronic	0.006173	0	-1.54
chr4.hg19:46941228G>A	rs145042590	intronic	0	0.009091	0.248
chr4.hg19:46942361C>T	rs148088063	intronic	0.0125	0	1.28

chr4.hg19:46942867A>G	rs116695571	intronic	0	0.009091	0.537
chr4.hg19:46943655G>A	.	intronic	0	0.009091	3.43
chr4.hg19:46943726C>T	rs10021918	intronic	0.358	0.3273	-3.9
chr4.hg19:46944169C>A	rs2351170	intronic	0.3671	0.3273	0.669
chr4.hg19:46944234A>G	rs1398177	intronic	0.3537	0.3241	0.925
chr4.hg19:46944959C>T	rs10025379	intronic	0.3537	0.3208	0.421
chr4.hg19:46945050A>C	rs144078895	intronic	0	0.009259	-0.21
chr4.hg19:46945416C>T	.	intronic	0	0.009091	2.3
chr4.hg19:46945546C>T	rs76439792	intronic	0.0122	0	-0.618
chr4.hg19:46946723T>G	rs28497667	intronic	0.3519	0.2963	-0.639
chr4.hg19:46946832C>T	.	intronic	0.006098	0	-3.43
chr4.hg19:46946906C>A	rs11946433	intronic	0.08537	0.1	0.918
chr4.hg19:46946970T>A	.	intronic	0.006098	0	0.474
chr4.hg19:46947812A>C	rs146898865	intronic	0	0.009091	0.854
chr4.hg19:46948167A>G	rs181166493	intronic	0.03049	0.009091	-5.85
chr4.hg19:46948675T>A	.	intronic	0.006098	0	-1.09
chr4.hg19:46948811A>G	.	intronic	0	0.009259	2.21
chr4.hg19:46949319C>T	.	intronic	0.006098	0	-6.39
chr4.hg19:46949593A>G	rs1160091	intronic	0.358	0.3056	-2.9
chr4.hg19:46949662G>A	rs1160092	intronic	0.3537	0.3091	-0.674
chr4.hg19:46949770G>C	rs1160093	intronic	0.3537	0.3	-0.81
chr4.hg19:46950764C>A	.	intronic	0.006098	0	-6.33
chr4.hg19:46951126T>C	.	intronic	0	0.009091	0.304
chr4.hg19:46951781G>A	rs13140528	intronic	0.3537	0.3148	-0.361
chr4.hg19:46952304C>T	.	intronic	0	0.009091	-3.9
chr4.hg19:46952471A>G	rs1512130	intronic	0.4634	0.463	-0.997
chr4.hg19:46952483G>A	rs368425575	intronic	0	0.01852	-0.0536
chr4.hg19:46952602A>G	rs1512131	intronic	0.3537	0.3148	1.81
chr4.hg19:46952603G>T	.	intronic	0.006098	0	-1.45
chr4.hg19:46952923A>G	.	intronic	0.00625	0.01923	-0.685
chr4.hg19:46953347A>G	rs7680308	intronic	0.3765	0.3091	1.65
chr4.hg19:46953507C>T	.	intronic	0	0.009091	-1.81
chr4.hg19:46953508G>A	rs150493499	intronic	0.03086	0.009091	-7.59
chr4.hg19:46953808T>C	rs1912959	intronic	0.372	0.3091	0
chr4.hg19:46953861C>T	rs138269590	intronic	0.006098	0.009091	2.66
chr4.hg19:46954745C>T	.	intronic	0.006098	0	3.21
chr4.hg19:46954865A>T	.	intronic	0	0.009091	1.56
chr4.hg19:46954887A>G	.	intronic	0.006173	0	-6.69
chr4.hg19:46954968C>T	rs9995416	intronic	0.372	0.3091	1.43
chr4.hg19:46955027T>C	rs190935860	intronic	0.006098	0	-0.465
chr4.hg19:46955190T>C	rs78531037	intronic	0.0122	0.009091	-2.11
chr4.hg19:46955235C>T	rs77736837	intronic	0.006098	0.01818	-1.51
chr4.hg19:46956415A>T	rs34130578	intronic	0.372	0.3091	0.225
chr4.hg19:46956567G>T	rs10023110	intronic	0.372	0.3091	-0.841
chr4.hg19:46957037A>G	rs62303699	intronic	0.01829	0	-2.23
chr4.hg19:46957120C>T	rs76523213	intronic	0.04268	0.02727	-3.39
chr4.hg19:46957130A>G	rs111248662	intronic	0.01829	0.01818	-1.79

chr4.hg19:46957176C>T	rs10004131	intronic	0.372	0.3091	-4.2
chr4.hg19:46957305A>G	rs10015891	intronic	0.372	0.3091	0.652
chr4.hg19:46957351A>C	.	intronic	0.006098	0	-0.128
chr4.hg19:46957469C>T	.	intronic	0.006098	0	-4.03
chr4.hg19:46957697T>G	rs7665758	intronic	0.372	0.3091	-1.24
chr4.hg19:46957782C>T	rs7683472	intronic	0.372	0.3091	-2.55
chr4.hg19:46957907C>T	rs138965607	intronic	0	0.009091	3.73
chr4.hg19:46957971G>C	.	intronic	0.006098	0	-1.32
chr4.hg19:46958129T>A	rs113214449	intronic	0.006098	0	3.11
chr4.hg19:46958290G>A	rs145390789	intronic	0.006098	0	2.06
chr4.hg19:46958693T>C	rs1512132	intronic	0.3765	0.3091	1.17
chr4.hg19:46958817C>T	rs1398172	intronic	0.372	0.3091	-5.79
chr4.hg19:46959108A>G	rs997070	intronic	0.3765	0.3091	2.08
chr4.hg19:46959130T>C	rs192088458	intronic	0.006098	0.009091	0.0185
chr4.hg19:46959208C>T	.	intronic	0	0.009091	-0.317
chr4.hg19:46959220T>A	rs997071	intronic	0.372	0.3091	-4.45
chr4.hg19:46959282C>A	rs9291300	intronic	0.006098	0	2.1
chr4.hg19:46959321C>A	rs188481398	intronic	0.02439	0.009091	-0.706
chr4.hg19:46960007T>A	rs9291301	intronic	0.3659	0.3091	1.48
chr4.hg19:46960268T>C	rs35561607	intronic	0.01829	0	-2.56
chr4.hg19:46960483C>T	.	intronic	0.006098	0	1.79
chr4.hg19:46960502T>A	rs10011168	intronic	0.372	0.3091	3.33
chr4.hg19:46960574G>A	rs144716040	intronic	0.006098	0.009091	0.148
chr4.hg19:46960703A>G	rs183175971	intronic	0	0.009091	1.63
chr4.hg19:46960727T>C	rs1512133	intronic	0.3765	0.3091	1.23
chr4.hg19:46960730G>T	rs1512134	intronic	0.3765	0.3091	-4.23
chr4.hg19:46961097G>A	rs111602200	intronic	0.006173	0	-7.65
chr4.hg19:46961837A>G	.	intronic	0	0.009091	-2.25
chr4.hg19:46962081A>G	rs871207	intronic	0.3659	0.3019	-1.41
chr4.hg19:46962181G>A	rs871206	intronic	0.3659	0.3091	2.91
chr4.hg19:46962535A>C	rs73247606	intronic	0.01829	0	-2.93
chr4.hg19:46962560C>T	rs2175553	intronic	0.3642	0.3056	3.01
chr4.hg19:46962686G>A	rs13130440	intronic	0.3608	0.3019	-0.00393
chr4.hg19:46962819A>G	rs13107073	intronic	0.3659	0.3091	-1.23
chr4.hg19:46963222C>T	rs6844842	intronic	0.3625	0.3091	0.545
chr4.hg19:46963459C>T	rs13138759	intronic	0.3625	0.3091	-7.22
chr4.hg19:46963461G>C	rs62303702	intronic	0.01829	0	-2.29
chr4.hg19:46963545G>A	rs12696822	intronic	0.3625	0.3091	-0.177
chr4.hg19:46963682A>T	rs78336370	intronic	0.01829	0.02727	-0.643
chr4.hg19:46964020G>A	.	intronic	0.006098	0	1.21
chr4.hg19:46964055T>C	rs10023399	intronic	0.3659	0.3091	-0.736
chr4.hg19:46964107T>G	rs73247608	intronic	0.01829	0	0.716
chr4.hg19:46964291A>G	.	intronic	0.006098	0	-0.451
chr4.hg19:46964295A>T	rs200735007	intronic	0.01235	0.009091	0.225
chr4.hg19:46964421A>C	rs112148938	intronic	0.006098	0	0.225
chr4.hg19:46964648A>G	rs1912961	intronic	0.3598	0.3091	0.225
chr4.hg19:46965103T>C	rs147196611	intronic	0.02439	0.02727	0.235

chr4.hg19:46965642C>T	rs114151283	intronic	0	0.009091	0.235
chr4.hg19:46965713G>T	rs1116735	intronic	0.3642	0.3091	0.235
chr4.hg19:46965739A>G	rs10024828	intronic	0.3642	0.3091	-0.47
chr4.hg19:46965821G>C	.	intronic	0.006098	0	0.235
chr4.hg19:46965973A>C	rs116740572	intronic	0.01829	0.009091	0.521
chr4.hg19:46966120T>C	rs114197079	intronic	0.06707	0.06364	0.521
chr4.hg19:46966249T>C	.	intronic	0	0.009091	-1.04
chr4.hg19:46966259A>G	rs4353875	intronic	0.3659	0.3091	0.521
chr4.hg19:46966643C>T	.	intronic	0	0.009091	-2.28
chr4.hg19:46966725G>T	.	intronic	0	0.009091	0.00496
chr4.hg19:46967279C>A	rs2055943	intronic	0.3395	0.3091	-3.14
chr4.hg19:46967304A>C	.	intronic	0.03165	0	-1.08
chr4.hg19:46967488C>T	rs2280074	intronic	0.3642	0.3091	0.294
chr4.hg19:46967573G>C	rs2280073	intronic	0.3642	0.3091	-0.501
chr4.hg19:46967779G>A	rs112368161	intronic	0.0122	0.009091	-3.5
chr4.hg19:46968050T>C	rs2055942	intronic	0.3415	0.3091	0.182
chr4.hg19:46968138T>C	rs2055941	intronic	0.3659	0.3091	2.36
chr4.hg19:46968423C>T	.	intronic	0.006098	0	-1
chr4.hg19:46968755C>A	.	intronic	0.006098	0	-6.03
chr4.hg19:46969491C>T	.	intronic	0.006098	0	0.864
chr4.hg19:46969502C>T	.	intronic	0	0.009091	-3.99
chr4.hg19:46970196C>A	rs7698023	intronic	0.3642	0.3091	4.05
chr4.hg19:46970226T>G	rs181929290	intronic	0.01852	0	-0.0369
chr4.hg19:46970330G>T	rs186574614	intronic	0	0.009091	-3.28
chr4.hg19:46970411A>G	rs112200490	intronic	0.03659	0.04545	1.27
chr4.hg19:46970477T>A	.	intronic	0.006098	0	0.353
chr4.hg19:46970716T>A	rs17599367	intronic	0.01829	0	0.721
chr4.hg19:46970998A>G	.	intronic	0.006098	0	-0.072
chr4.hg19:46971324C>T	rs7658410	intronic	0.189	0.2273	-1.85
chr4.hg19:46971359G>T	.	intronic	0	0.009091	-3.41
chr4.hg19:46971375T>A	rs144311104	intronic	0	0.009091	-0.813
chr4.hg19:46971491G>A	rs6447519	intronic	0.3598	0.3091	-2.28
chr4.hg19:46971544A>G	rs182087659	intronic	0	0.009091	2.16
chr4.hg19:46971679T>C	rs17641603	intronic	0.01829	0	-0.661
chr4.hg19:46972009A>C	rs16859788	intronic	0.006098	0	2.12
chr4.hg19:46972131C>T	rs16859794	intronic	0.3598	0.3091	-3.43
chr4.hg19:46972150T>C	rs28579132	intronic	0.3598	0.3091	-1.78
chr4.hg19:46972571A>T	rs139745050	intronic	0	0.009091	-9.22
chr4.hg19:46972719A>G	.	intronic	0.006098	0	2.84
chr4.hg19:46972899C>A	rs2271429	intronic	0.3642	0.3091	-3.89
chr4.hg19:46973270G>A	rs45625131	intronic	0.03659	0.05455	1.07
chr4.hg19:46973438A>G	rs17599416	intronic	0.01829	0	-2.35
chr4.hg19:46973459C>T	.	intronic	0	0.009091	-4.56
chr4.hg19:46973653C>G	rs113012502	intronic	0.0679	0.04545	-0.721
chr4.hg19:46973888T>C	rs1512135	intronic	0.01852	0	0.515
chr4.hg19:46974572T>C	rs28588984	intronic	0.01829	0	-3.28
chr4.hg19:46974668A>G	rs142231249	intronic	0	0.01818	0.281

chr4.hg19:46974857C>G	rs16859805	intronic	0.006098	0	0.727
chr4.hg19:46975116T>C	rs17599423	intronic	0.02439	0.01818	-1.14
chr4.hg19:46975155A>G	rs141274660	intronic	0.006098	0.009091	0.349
chr4.hg19:46975656C>T	rs150215652	intronic	0.01852	0.009091	-4.85
chr4.hg19:46975674A>G	.	intronic	0	0.009091	-2.73
chr4.hg19:46976059G>A	rs187055104	intronic	0	0.009091	-2.04
chr4.hg19:46977627A>G	.	intronic	0.006098	0	-4.36
chr4.hg19:46977693T>C	.	intronic	0	0.009091	1.52
chr4.hg19:46978365C>A	rs3792210	intronic	0.006098	0	1.38
chr4.hg19:46978492A>G	rs191936715	intronic	0	0.009091	-1.88
chr4.hg19:46978671A>G	rs186914131	intronic	0.01235	0	1.6
chr4.hg19:46979293A>G	.	intronic	0.006098	0	0.774
chr4.hg19:46979366A>G	rs74332607	intronic	0.02439	0	0
chr4.hg19:46980679G>T	rs13132953	intronic	0.4024	0.3636	0.427
chr4.hg19:46981192G>A	rs114854980	intronic	0.006098	0.02727	1.04
chr4.hg19:46981282C>T	.	intronic	0	0.009091	-3.36
chr4.hg19:46981342A>G	rs41265719	intronic	0.006098	0.03636	0.682
chr4.hg19:46981374C>T	rs41265721	intronic	0.006098	0.009091	1.32
chr4.hg19:46981512G>C	rs182898708	intronic	0.006098	0	-0.294
chr4.hg19:46981522A>G	.	intronic	0	0.009091	-0.627
chr4.hg19:46981623C>T	.	intronic	0.006098	0	0.83
chr4.hg19:46981834T>A	.	intronic	0	0.009091	1.6
chr4.hg19:46981880C>T	rs149960734	intronic	0.04938	0.009091	-2.51
chr4.hg19:46981907A>G	.	intronic	0	0.009091	-3.31
chr4.hg19:46982218T>G	rs17641660	intronic	0.03659	0.02727	1.48
chr4.hg19:46982309C>T	rs10517171	intronic	0.01235	0	0.431
chr4.hg19:46982434T>G	rs10517172	intronic	0.01235	0	3.99
chr4.hg19:46982496A>C	rs10517173	intronic	0.01235	0	0.285
chr4.hg19:46982562C>T	.	intronic	0.006098	0	-1.88
chr4.hg19:46982678A>G	.	intronic	0.006098	0	-0.748
chr4.hg19:46982826G>A	rs10517174	intronic	0.01235	0	-1.31
chr4.hg19:46982984G>A	rs10517175	intronic	0.01235	0	4.36
chr4.hg19:46983062T>G	rs73813760	intronic	0.01235	0	-0.627
chr4.hg19:46983078C>A	rs73813761	intronic	0.01235	0	0.0682
chr4.hg19:46983118A>G	rs192188284	intronic	0.006098	0	1.03
chr4.hg19:46983360G>T	rs75253498	intronic	0.006098	0	0.869
chr4.hg19:46983522A>G	rs13130893	intronic	0.3841	0.3455	-2.6
chr4.hg19:46983662C>T	rs181264330	intronic	0.006098	0	0.156
chr4.hg19:46983708T>C	rs149165904	intronic	0.006098	0	0.939
chr4.hg19:46983765T>C	rs60662599	intronic	0.006098	0	-1.94
chr4.hg19:46984086C>T	rs74865156	intronic	0.006098	0	-0.0935
chr4.hg19:46984608C>T	rs114590113	intronic	0.01829	0.02727	0.27
chr4.hg19:46984714G>A	rs190910464	intronic	0.0122	0	-5.59
chr4.hg19:46984785G>A	rs144035024	intronic	0.006098	0.009091	-2.5
chr4.hg19:46984851T>G	rs2036940	intronic	0.01235	0	-0.149
chr4.hg19:46984932A>G	rs186809808	intronic	0	0.01818	-1.22
chr4.hg19:46985062C>T	rs13117953	intronic	0.06707	0.08182	-2.75

chr4.hg19:46985378C>A	.	intronic	0.006098	0	3.95
chr4.hg19:46985459G>A	rs115762610	intronic	0.006098	0	1.06
chr4.hg19:46985750A>C	rs7694035	intronic	0.3171	0.3545	1.07
chr4.hg19:46985805T>G	rs61409453	intronic	0.01235	0	3.84
chr4.hg19:46985905G>A	.	intronic	0	0.009091	-0.669
chr4.hg19:46986138G>T	.	intronic	0.006098	0	0.596
chr4.hg19:46986332C>T	.	intronic	0.006098	0	-3.36
chr4.hg19:46986614A>G	.	intronic	0.006098	0	-0.204
chr4.hg19:46987026A>G	rs189422096	intronic	0.006098	0.009091	3.48
chr4.hg19:46987105A>G	.	intronic	0.006098	0	2.45
chr4.hg19:46987315C>T	rs79535621	intronic	0	0.009091	-3.98
chr4.hg19:46987332T>G	rs113614952	intronic	0.006173	0	-3.2
chr4.hg19:46987936C>T	rs148941125	intronic	0.006098	0.01818	-4.69
chr4.hg19:46988174G>T	.	intronic	0	0.009091	-2.39
chr4.hg19:46988953T>C	rs116837070	intronic	0.0122	0.009091	0.506
chr4.hg19:46989494C>T	.	intronic	0.006098	0	-1.46
chr4.hg19:46990101T>A	rs149447470	intronic	0.02439	0.01818	0.661
chr4.hg19:46990188A>C	rs114134151	intronic	0.05488	0.009091	-2.59
chr4.hg19:46991015C>T	.	intronic	0.006098	0	-1.22
chr4.hg19:46991056C>A	.	intronic	0.006098	0	-2.9
chr4.hg19:46991257G>A	rs140502291	intronic	0.01829	0.01818	0.798
chr4.hg19:46991296C>T	.	intronic	0	0.009091	2.28
chr4.hg19:46992062C>T	.	intronic	0.006098	0	-3.13
chr4.hg19:46993345T>C	rs16859829	intronic	0.006098	0.01818	1.16
chr4.hg19:46993562G>C	rs11735333	intronic	0.4383	0.4	1.89
chr4.hg19:46993664G>A	.	intronic	0	0.009091	-3.55
chr4.hg19:46994430A>T	.	intronic	0	0.009091	2
chr4.hg19:46994463G>A	.	intronic	0	0.009091	1.79
chr4.hg19:46994495C>A	rs3792211	intronic	0.4383	0.4	2.69
chr4.hg19:46995050G>C	rs112472467	intronic	0.0122	0.009091	1.87
chr4.hg19:46995366G>T	rs2229940	exonic	0.4383	0.4	2.98
chr4.hg19:46995653G>T	rs13151759	UTR5	0.4321	0.4	4.83
chr4.hg19:46995660G>A	rs13151769	UTR5	0.4321	0.3909	1.34
chr4.hg19:46996469G>A	rs3762608	intergenic	0.0122	0.009091	-1.67
chr4.hg19:46996470A>G	rs3762609	intergenic	0.2346	0.2019	-1.29
chr4.hg19:46996545G>C	rs3762610	intergenic	0.006173	0.009091	-3.26
chr4.hg19:46996824A>G	rs186233707	intergenic	0	0.009091	-3.14
chr4.hg19:46997288G>A	rs3762611	intergenic	0.006173	0.009091	-1.08
chr4.hg19:46997524T>G	rs62303734	intergenic	0.02439	0.01818	-1.26
chr4.hg19:46997585T>A	rs12512719	intergenic	0.006098	0.009091	0.787
chr4.hg19:46997804G>T	rs182938548	intergenic	0.006098	0	-2.27
chr4.hg19:46997913G>A	rs2055940	intergenic	0.4198	0.3727	-4.56
chr4.hg19:46998390T>A	.	intergenic	0.006098	0	2.06
chr4.hg19:46998410T>C	rs16859842	intergenic	0.006173	0.009091	-0.713
chr4.hg19:46998880C>T	rs979273	intergenic	0.4695	0.434	1.8
chr4.hg19:46998954T>C	.	intergenic	0	0.009091	2.65
chr4.hg19:46998968G>C	rs116692820	intergenic	0	0.009091	-3.4

chr4.hg19:46999086T>C	rs73813771	intergenic	0.006173	0.009091	1.51
chr4.hg19:46999164C>G	.	intergenic	0	0.009259	1.98
chr4.hg19:46999235A>G	rs7683042	intergenic	0.439	0.4057	1.64
chr4.hg19:46999452T>A	.	intergenic	0	0.01852	0.158
chr4.hg19:46999488C>T	.	intergenic	0.006098	0	-1.69
chr4.hg19:46999489G>A	rs62303735	intergenic	0.03659	0.03636	0.337
chr4.hg19:47000043C>T	rs73813772	intergenic	0.006173	0.009091	-2.55
chr4.hg19:47000084G>A	rs182903944	intergenic	0	0.009091	-0.409
chr4.hg19:47000579T>C	rs140289800	intergenic	0.03659	0.03636	0.39
chr4.hg19:47000617G>A	rs184476857	intergenic	0	0.009091	-1.07
chr4.hg19:47000644G>A	rs150289418	intergenic	0.006173	0.009091	-0.781
chr4.hg19:47000654G>A	rs188360853	intergenic	0.03049	0.009091	0.39
chr4.hg19:47000717C>T	.	intergenic	0	0.009091	0.0465
chr4.hg19:47000894T>G	.	intergenic	0.006098	0	-0.933
chr4.hg19:47001050C>T	rs74686024	intergenic	0.02439	0.02727	-3.91
chr4.hg19:47001095C>G	rs73813773	intergenic	0.006173	0.009091	-5.6
chr4.hg19:47001096A>G	.	intergenic	0	0.009091	-5.38
chr4.hg19:47001432T>C	rs11729763	intergenic	0.02439	0.01818	0.947
chr4.hg19:47001790A>G	rs11729000	intergenic	0.006098	0.009091	-0.47
chr4.hg19:47001870T>C	rs75197150	intergenic	0	0.009091	0.235
chr4.hg19:47002051A>G	rs10938467	intergenic	0.2134	0.2182	-0.47
chr4.hg19:47002177A>G	rs11729961	intergenic	0.006098	0	1.58
chr4.hg19:47002378C>T	rs6447520	intergenic	0.4512	0.3704	1.34
chr4.hg19:47002457T>A	.	intergenic	0.006098	0	-0.638
chr4.hg19:47002475T>C	rs59481829	intergenic	0.006098	0.009091	1.91
chr4.hg19:47002708G>C	.	intergenic	0	0.009091	0.361
chr4.hg19:47002804C>A	rs146853986	intergenic	0	0.009091	0.546
chr4.hg19:47002984C>T	rs1159316	intergenic	0.4756	0.4182	0.964
chr4.hg19:47003076T>C	rs1159315	intergenic	0.4085	0.4182	2.2
chr4.hg19:47003133T>C	rs13116518	intergenic	0.439	0.4182	-0.0161
chr4.hg19:47003245C>T	rs13136474	intergenic	0.4634	0.3704	-0.317
chr4.hg19:47003309C>G	rs6447521	intergenic	0.08537	0.09091	0.158
chr4.hg19:47003311C>T	rs371585865	intergenic	0.006098	0.009091	0.158
chr4.hg19:47003316C>T	rs6447522	intergenic	0.2927	0.2547	-0.317
chr4.hg19:47003317G>A	rs6447523	intergenic	0.2927	0.2547	-0.317
chr4.hg19:47003321A>G	rs113294607	intergenic	0.03704	0.009091	-1.35
chr4.hg19:47003323C>G	.	intergenic	0	0.01818	-1.15
chr4.hg19:47003335A>G	.	intergenic	0	0.009091	0.666
chr4.hg19:47003349T>C	rs373147704	intergenic	0	0.01852	-0.727
chr4.hg19:47003351T>G	rs377301634	intergenic	0	0.02727	-0.727
chr4.hg19:47003361G>A	rs191758928	intergenic	0	0.01818	-0.317
chr4.hg19:47003370A>G	.	intergenic	0	0.009091	-0.721
chr4.hg19:47003372G>A	rs7684209	intergenic	0.08537	0.07273	-0.637
chr4.hg19:47003380G>C	rs6447524	intergenic	0.2654	0.2685	-0.317
chr4.hg19:47003381A>G	rs35128586	intergenic	0.2317	0.2	-0.317
chr4.hg19:47003410T>C	rs190515423	intergenic	0.006098	0	-0.317
chr4.hg19:47003429A>G	rs146975148	intergenic	0	0.009091	-1.35

chr4.hg19:47003449A>G	rs138144998	intergenic	0.0122	0	-0.56
chr4.hg19:47003450T>C	rs149371685	intergenic	0.0122	0.009091	-0.994
chr4.hg19:47003560G>A	rs4695185	intergenic	0.006173	0.009091	-1.92
chr4.hg19:47003587T>C	rs185179599	intergenic	0.01829	0	-0.369
chr4.hg19:47003702A>G	rs4695186	intergenic	0.03659	0.06364	0.736
chr4.hg19:47003757A>G	rs115587045	intergenic	0	0.009091	-0.611
chr4.hg19:47003829T>G	rs4695187	intergenic	0.4198	0.4273	-5.73
chr4.hg19:47004021G>A	rs146060855	intergenic	0.006098	0	-0.00594
chr4.hg19:47004037A>G	rs1512144	intergenic	0.4268	0.4364	0.629
chr4.hg19:47004098A>T	rs1512143	intergenic	0.4198	0.4259	0.558
chr4.hg19:47004247T>A	.	intergenic	0.006098	0	-1.92
chr4.hg19:47004305G>A	rs1512142	intergenic	0.3765	0.3981	-4.74
chr4.hg19:47005013G>A	rs76955246	intergenic	0.02439	0.01852	-2.01
chr4.hg19:47005105A>C	.	intergenic	0.006329	0	0.0403