

Table S1. Genetic variants analyzed. Genotypes, reference and alternative alleles show their respective frequencies. HWE p-values are also included.

SNP	Chromosome position	Reference/Alternative Alleles (Frequencies %)	Genotypes (Frequency %)	HWE p-value
rs1421091	53739773	A/C (0.504/0.496)	AA (25.71) AC (49.37) CC (24.92)	0.753
rs4389136	53747858	A/G (0.527/0.473)	AA (28.06) AG (49.37) GG (22.57)	0.809
rs140352368	53751902	G/T (0.997/0.003)	GG (99.37) GT (0.62) TT (0)	0.937
rs7205986	53755146	A/G (0.799/0.201)	AA (65.04) AG (29.62) GG (5.33)	0.046
rs1421084	53757740	A/G (0.969/0.031)	AA (94.36) AG (5.02) GG (0.63)	0.000
rs57976072	53759099	C/T (0.995/0.005)	CC (99.06) CT (0.94) TT (0)	0.905
rs4386132	53759123	C/T (0.972/0.028)	CC (94.36) CT (5.64) TT (0)	0.463
rs7202836	53760532	G/A (0.991/0.009)	GG (98.43) GA (1.41)	0.000

rs9925311	53767648	G/A (0.976/0.024)	AA (0.16)	0.298
			GG (95.30)	
			GA (4.55)	
rs7203521	53769293	G/A (0.725/0.275)	AA (0.15)	0.732
			GG (52.82)	
			GA (39.34)	
rs6499640	53769677	G/A (0.725/0.275)	AA (7.84)	0.732
			GG (52.82)	
			GA (39.34)	
rs62048371	53770081	A/G (0.987/0.013)	AA (7.84)	0.004
			AA (97.65)	
			AG (2.19)	
rs74018195	53771105	T/C (0.991/0.009)	GG (0.15)	0.826
			TT (98.28)	
			TC (1.72)	
rs4396532	53773047	G/A (0.946/0.036)	CC (0)	0.846
			GG (92.95)	
			GA (6.90)	
rs79977114	53774354	A/G (0.989/0.011)	AA (0.15)	0.779
			AA (97.81)	
			AG (2.19)	
rs74449711	53784964	T/G (0.987/0.013)	GG (0)	0.004
			TT (97.65)	
			TG (2.19)	
rs1861868	53790402	C/T (0.693/0.307)	GG (0.15)	0.740
			CC (48.28)	
			CT (42.00)	
rs1075440	53790906	G/A	TT (9.72)	0.322
			GG (36.05)	

		(0.592/0.408)	GA (46.40) AA (17.55)	
rs7191566	53793204	A/G (0.816/0.184)	AA (65.99) AG (31.19) GG (2.82)	0.338
rs13334933	53795636	A/G (0.897/0.103)	AA (81.03) AG (17.40) GG (1.57)	0.159
rs6499642	53797506	C/T (0.978/0.022)	CC (95.92) CT (3.76) TT (0.31)	0.002
rs8047395	53798523	G/A (0.574/0.426)	GG (36.68) GA (41.38) AA (21.94)	0.000
rs9939973	53800568	G/A (0.731/0.269)	GG (54.08) GA (38.08) AA (7.84)	0.432
rs9940128	53800754	G/A (0.731/0.269)	GG (54.08) GA (38.09) AA (7.83)	0.432
rs1421085	53800954	T/C (0.787/0.213)	TT (64.26) TC (28.84) CC (6.89)	0.000
rs16952520	53803038	A/G (0.861/0.140)	AA (74.45) AG (23.20) GG (2.35)	0.394
rs1558902	53803574	T/A (0.778/0.222)	TT (60.19) TA (35.26) AA (4.54)	0.585

rs55872725	53809123	C/T (0.793/0.207)	CC (63.32) CT (31.97) TT (4.70)	0.516
rs1121980	53809247	G/A (0.723/0.277)	GG (52.98) GA (38.71) AA (8.30)	0.409
rs73612011	53809861	A/G (0.965/0.035)	AA (93.41) AG (6.11) GG (0.48)	0.010
rs72803680	53810635	A/G (0.882/0.118)	AA (78.36) AG (19.74) GG (1.88)	0.224
rs62033399	53810943	C/T (0.794/0.206)	CC (63.79) CT (31.19) TT (5.02)	0.236
rs16945088	53812524	A/G (0.886/0.114)	AA (81.19) AG (14.89) GG (3.91)	0.000
rs17817449	53813367	T/G (0.757/0.243)	TT (63.63) TG (24.13) GG (12.23)	0.000
rs8043757	53813450	A/T (0.751/0.249)	AA (63.32) AT (23.51) TT (13.17)	0.000
rs11075987	53815161	T/G (0.571/0.429)	TT (33.86) TG (46.55) GG (19.59)	0.210
rs8050136	53816275	C/A (0.780/0.220)	CC (63.48) CA (28.99)	0.000

rs3751812	53818460	G/T (0.811/0.189)	AA (7.52)	0.402
			GG (66.30)	
			GT (29.62)	
			TT (4.08)	
rs3751813	53818708	G/T (0.641/0.359)	GG (44.04)	0.001
			GT (40.13)	
			TT (15.83)	
rs9936385	53819169	T/C (0.794/0.206)	TT (63.32)	0.646
			TC (32.13)	
			CC (4.55)	
rs11075990	53819893	A/G (0.794/0.206)	AA (63.32)	0.646
			AG (32.13)	
			GG (4.55)	
rs9939609	53820527	T/A (0.794/0.206)	TT (63.32)	0.646
			TA (32.13)	
			AA (4.55)	
rs7206629	53821413	T/C (0.742/0.258)	TT (56.27)	0.117
			TC (35.89)	
			CC (7.83)	
rs7202116	53821615	A/G (0.794/0.206)	AA (63.32)	0.646
			AG (32.13)	
			GG (4.55)	
rs7185735	53822651	A/G (0.794/0.206)	AA (63.32)	0.646
			AG (32.13)	
			GG (4.55)	
rs9941349	53825488	C/T (0.778/0.222)	CC (62.54)	0.004
			CT (30.56)	
			TT (6.89)	
rs17817964	53828066	C/T	CC (65.99)	0.597

		(0.810/0.190)	CT (30.09) TT (3.91)	
rs9930506	53830465	A/G (0.640/0.361)	AA (61.76) AG (4.39) GG (33.86)	0.000
rs9922619	53831771	G/T (0.774/0.226)	GG (61.91) GT (30.88) TT (7.21)	0.003
rs2111650	53832816	T/C (0.867/0.133)	TT (75.86) TC (21.63) CC (2.51)	0.109
rs8044769	53839135	T/C (0.495/0.505)	TT (33.07) TC (32.91) CC (34.01)	0.000
rs111357538	53842712	G/A (0.985/0.015)	GG (97.02) GA (2.97) AA (0)	0.703
rs12149832	53842908	G/A (0.803/0.197)	GG (64.89) GA (30.72) AA (4.39)	0.436
rs201041270	53844134	G/A (100/0)	GG (100) GA (0) AA (0)	-
rs75547181	53845040	A/G (0.939/0.061)	AA (88.08) AG (11.59) GG (0.31)	0.791
rs11642841	53845487	C/A (0.817/0.183)	CC (66.77) CA (29.93) AA (3.29)	0.942

rs146563001	53845575	G/A (0.999/0.001)	GG (99.84) GA (0.16) AA (0)	0.984
rs9972717	53851304	G/A (0.876/0.124)	GG (76.49) GA (22.26) AA (1.25)	0.515
rs9925952	53853898	A/G (0.392/0.608)	AA (15.51) AG (47.33) GG (37.14)	0.863
rs11075995	53855291	A/T (0.468/0.532)	AA (16.77) AT (60.03) TT (23.20)	0.000
rs75929173	53856104	C/T (0.995/0.005)	CC (99.06) CT (0.04) TT (0)	0.905
rs74018601	53857113	C/T (0.969/0.031)	CC (94.04) CT (5.79) TT (0.15)	0.589
rs10852523	53858954	T/C (0.632/0.368)	TT (40.13) TC (46.23) CC (13.64)	0.890
rs61743972	53860197	G/C (0.411/0.589)	GG (28.68) GC (24.92) CC (46.39)	0.000
rs3826169	53860481	G/A (0.269/0.731)	GG (15.83) GA (22.10) AA (62.07)	0.000
rs10521308	53865126	G/A (0.969/0.031)	GG (94.04) GA (5.80)	0.589

rs10521307	53865701	A/G (0.813/0.187)	AA (0.16)	0.048
			AA (67.24)	
			AG (28.06)	
			GG (4.70)	
rs7203572	53869366	A/C (0.710/0.290)	AA (61.44)	0.000
			AC (19.12)	
			CC (19.44)	
rs112728008	53871621	A/G (0.982/0.018)	AA (96.55)	0.076
			AG (3.29)	
			GG (0.15)	
rs17819033	53873103	G/T (0.879/0.121)	GG (77.11)	0.878
			GT (21.47)	
			TT (1.41)	
rs8043785	53873666	A/G (0.722/0.278)	AA (53.91)	0.022
			AG (36.52)	
			GG (9.56)	
rs17219983	53874918	C/T (0.717/0.283)	CC (51.25)	0.835
			CT (40.91)	
			TT (7.84)	
rs12595985	53876751	C/A (0.916/0.084)	CC (84.17)	0.435
			CA (14.89)	
			AA (0.94)	
rs2160481	53884113	A/G (0.668/0.332)	AA (43.88)	0.428
			AG (45.76)	
			GG (10.34)	
rs12448205	53885683	A/G (0.643/0.357)	AA (40.91)	0.669
			AG (46.71)	
			GG (12.38)	
rs9934979	53886587	C/T	CC (13.63)	0.000

		(0.310/0.690)	CT (34.79) TT (51.56)	
rs17820328	53895804	A/G (0.975/0.025)	AA (95.14) AG (4.70) GG (0.16)	0.332
rs16952608	53897352	T/C (0.962/0.038)	TT (92.47) TC (7.37) CC (0.16)	0.949
rs28551130	53897914	T/C (0.973/0.027)	TT (94.67) TC (5.32) CC (0)	0.489
rs139397692	53902297	G/A (0.003/0.007)	GG (98.59) GA (1.41) AA (0)	0.858
rs4784329	53910261	A/C (0.312/0.688)	AA (9.87) AC (42.63) CC (47.49)	0.864
rs9934504	53916879	G/A (0.910/0.090)	GG (83.07) GA (15.83) AA (1.10)	0.380
rs56335873	53920788	T/A (0.910/0.090)	TT (83.07) TA (15.83) AA (1.10)	0.380
rs533143696	53929369	C/T (100/0)	CC (100) CT (0) TT (0)	-
rs2111112	53937632	T/C (0.182/0.818)	TT (4.23) TC (27.90) CC (67.87)	0.116

rs9929152	53939403	G/A (0.231/0.769)	GG (11.91) GA (22.41) AA (65.67)	0.000
rs79970796	53939594	G/A (0.996/0.004)	GG (99.21) GA (0.78) AA (0)	0.921
rs17821532	53946698	G/A (0.985/0.015)	GG (97.02) GA (2.98) AA (0)	0.703
rs76299885	53950231	G/A (0.988/0.012)	GG (97.65) GA (2.35) AA (0)	0.764
rs12232391	53953119	T/G (0.472/0.528)	TT (22.88) TG (48.59) GG (28.53)	0.526
rs16952647	53954707	G/A (0.981/0.019)	GG (96.39) GA (3.44) AA (0.16)	0.097
rs16952657	53956934	C/T (0.933/0.067)	CC (87.46) CT (11.76) TT (0.78)	0.167
rs77673765	53965090	G/A (0.992/0.008)	GG (98.43) GA (1.56) AA (0)	0.842
rs9924072	53966063	A/G (0.658/0.342)	AA (44.51) AG (42.48) GG (13.01)	0.151
rs4784333	53969088	C/G (0.323/0.677)	CC (9.09) CG (46.39)	0.123

rs78496669	53975013	C/T (0.989/0.011)	GG (44.52)	0.779
			CC (97.81)	
			CT (2.19)	
			TT (0)	
rs12933996	53976662	G/A (0.513/0.487)	GG (26.33)	0.986
			GA (50)	
			AA (23.67)	
rs72807798	53978631	C/T (0.992/0.008)	CC (98.59)	0.000
			CT (1.25)	
			TT (0.17)	
rs16952662	53978846	G/A (0.988/0.012)	GG (97.65)	0.764
			GA (2.35)	
			AA (0)	
rs117893287	53981930	C/T (0.995/0.005)	CC (99.06)	0.905
			CT (0.94)	
			TT (0)	
rs35090620	53984623	T/C (0.533/0.467)	TT (28.84)	0.655
			TC (48.90)	
			CC (22.25)	
rs7192822	53986221	T/C (0.989/0.011)	TT (97.81)	0.779
			TC (2.19)	
			CC (0)	
rs35510800	53988267	G/A (0.713/0.287)	GG (50.78)	0.924
			GA (41.07)	
			AA (8.15)	
rs16952686	53989673	A/G (0.966/0.034)	AA (93.42)	0.140
			AG (6.27)	
			GG (0.31)	
rs1420572	53993267	C/A	CC (100)	-

		(100/0)	CA (0) AA (0)	
rs79755695	53995500	G/A (0.976/0.024)	GG (95.14) GA (4.86) AA (0)	0.529
rs17823199	53998930	C/T (0.476/0.524)	CC (23.82) CT (47.49) TT (28.68)	0.226
rs147458024	54000198	C/T (0.996/0.004)	CC (99.21) CT (0.78) TT (0)	0.921
rs1344502	54000792	G/A (0.371/0.629)	GG (15.20) GA (43.73) AA (41.07)	0.113
rs7194907	54003483	C/T (0.384/0.616)	CC (16.14) CT (44.51) TT (39.34)	0.136
rs116290784	54004229	C/T (0.992/0.008)	CC (98.43) CT (1.57) TT (0)	0.842
rs9940629	54004811	A/G (0.222/0.778)	AA (14.26) AG (15.83) GG (69.91)	0.000
rs9932394	54005099	C/A (0.371/0.629)	CC (16.30) CA (41.69) AA (42.01)	0.007
rs76948577	54006632	C/T (0.993/0.007)	CC (98.59) CT (1.41) TT (0)	0.858

rs77422645	54007640	G/A (0.995/0.005)	GG (99.06) GA (0.94) AA (0)	0.905
rs113014601	54008225	A/C (0.987/0.013)	AA (97.49) AC (2.51) CC (0)	0.748
rs8056299	54009501	G/A (0.231/0.769)	GG (6.27) GA (33.70) AA (60.03)	0.189
rs4784335	54009688	G/T (0.245/0.755)	GG (6.58) GT (35.89) TT (57.52)	0.440
rs9888758	54010321	A/G (0.078/0.922)	AA (86.67) AG (10.97) GG (2.36)	0.000
rs116907816	54014819	A/C (0.995/0.005)	AA (98.90) AC (1.10) CC (0)	0.889
rs139054159	54016869	G/T (0.988/0.012)	GG (97.81) GT (2.03) TT (0.16)	0.002
rs16952730	54018921	G/A (0.523/0.477)	GG (31.19) GA (42.16) AA (26.65)	0.000
rs76536391	54019653	C/T (0.987/0.013)	CC (97.65) CT (2.04) TT (0.31)	0.000
rs12324955	54019686	G/A (0.692/0.308)	GG (49.69) GA (39.02)	0.033

rs1125392	54020145	C/T (0.266/0.734)	AA (11.29)	0.069
			CC (8.46)	
			CT (36.21)	
			TT (55.33)	
rs8049235	54021009	G/A (0.797/0.203)	GG (65.83)	0.000
			GA (27.74)	
			AA (6.43)	
			TT (55.33)	
rs6499662	54026739	A/G (0.846/0.154)	AA (72.88)	0.008
			AG (23.35)	
			GG (3.76)	
			TT (55.33)	
rs117071353	54028708	C/T (0.998/0.002)	CC (99.69)	0.968
			CT (0.31)	
			TT (0)	
			TT (55.33)	
rs1966435	54030526	T/C (0.556/0.444)	TT (33.39)	0.010
			TC (44.36)	
			CC (22.26)	
			TT (55.33)	
rs8046658	54031563	T/C (0.403/0.597)	TT (23.35)	0.000
			TC (33.86)	
			CC (42.78)	
			TT (55.33)	
rs11646260	54032493	A/G (0.859/0.141)	AA (74.61)	0.083
			AG (22.57)	
			GG (2.82)	
			TT (55.33)	
rs7200972	54036352	G/A (0.313/0.687)	GG (12.07)	0.007
			GA (38.40)	
			AA (49.53)	
			TT (55.33)	
rs12931859	54039486	C/T (0.599/0.401)	CC (36.05)	0.833
			CT (47.65)	
			TT (16.30)	
			TT (55.33)	
rs9922370	54040916	A/G	AA (88.24)	0.821

		(0.940/0.060)	AG (11.44) GG (0.31)	
rs17226942	54043514	G/A (0.924/0.074)	GG (86.68) GA (11.91) AA (1.41)	0.001
rs62034069	54053483	T/C (0.983/0.017)	TT (96.55) TC (3.45) CC (0)	0.658
rs7194243	54056159	C/T (0.502/0.498)	CC (27.43) CT (45.45) TT (27.42)	0.022
rs17825519	54056753	T/C (0.985/0.015)	TT (97.18) TC (2.66) CC (0.16)	0.020
rs7195994	54060205	G/A (0.921/0.079)	GG (84.95) GA (14.26) AA (0.78)	0.586
rs111977557	54062556	A/G (0.998/0.002)	AA (99.53) AG (0.47) GG (0)	0.953
rs12051261	54065210	C/T (0.706/0.294)	CC (50.94) CT (39.34) TT (9.71)	0.188
rs62034083	54068320	A/G (0.984/0.016)	AA (96.71) AG (3.29) GG (0)	0.673
rs117659448	54070479	T/C (100/0)	TT (100) TC CC	-

rs117309839	54073103	C/T (0.987/0.013)	CC (97.94) CT (2.50) TT (0)	0.748
rs4784351	54075698	A/G (0.429/0.571)	AA (25.26) AG (35.27) GG (39.50)	0.000
rs16952906	54083167	T/C (0.960/0.040)	TT (92.31) TC (7.37) CC (0.31)	0.312
rs2540781	54087859	C/A (0.894/0.106)	CC (81.97) CA (14.89) AA (3.13)	0.000
rs856973	54093181	G/T (0.947/0.053)	GG (89.50) GT (10.34) TT (0.16)	0.524
rs117849391	54097226	C/A (0.997/0.003)	CC (99.37) CA (0.63) AA (0)	0.937
rs12446690	54098681	C/A (0.946/0.054)	CC (89.50) CA (10.19) AA (0.31)	0.917
rs2003583	54100006	C/T (0.591/0.409)	CC (37.93) CT (42.32) TT (19.75)	0.002
rs62034115	54105336	T/C (0.981/0.019)	TT (96.24) TC (3.76) CC (0)	0.628
rs9302656	54108991	G/A (0.942/0.058)	GG (88.87) GA (10.66)	0.536

rs75361495	54109412	A/G (100/0)	AA (0.47)	-
			AA (100)	
			AG (0)	
			GG (0)	
rs7206012	54113564	T/C (0.964/0.036)	TT (92.79)	0.345
			TC (7.21)	
			CC (0)	
			TT (0)	
rs967515	54114217	C/T (0.951/0.049)	CC (90.28)	0.197
			CT (9.72)	
			TT (0)	
			AA (98.59)	
rs59134332	54114242	A/G (0.993/0.007)	AG (1.41)	0.858
			GG (0)	
			GA (10.03)	
			AA (2.04)	
rs16953002	54114824	G/A (0.929/0.071)	GG (87.93)	0.000
			GA (10.03)	
			AA (2.04)	
			AA (49.69)	
rs708258	54115369	A/G (0.687/0.313)	AG (38.09)	0.004
			GG (12.23)	
			TT (38.87)	
			TC (45.92)	
rs1008400	54119892	T/C (0.618/0.382)	CC (15.20)	0.495
			AA (38.71)	
			AG (46.87)	
			GG (14.42)	
rs78638652	54122162	C/T (0.992/0.008)	CC (98.43)	0.842
			CT (1.57)	
			TT (0)	
			GG (83.39)	
rs11863548	54123512	G/A	GG (83.39)	0.000

		(0.895/0.105)	GA (12.23)	
			AA (4.39)	
rs708250	54125040	G/A	GG (0.16)	0.120
		(0.984/0.020)	GA (3.61)	
			AA (96.24)	
rs2665271	54127879	T/C	TT (17.71)	0.633
		(0.585/0.415)	TC (47.65)	
			CC (34.64)	
rs62034138	54129948	G/A	GG (71.32)	0.254
		(0.841/0.159)	GA (25.55)	
			AA (3.13)	
rs71392011	54150035	C/A	CC (97.18)	0.718
		(0.986/0.014)	CA (2.82)	
			AA (0)	
rs2542681	54150216	A/T	AA (5.17)	0.112
		(0.204/0.796)	AT (30.41)	
			TT (64.42)	
rs191211628	54151267	T/C	TT (97.81)	0.779
		(0.989/0.011)	TC (2.19)	
			CC (0)	
rs12597001	54151411	G/T	GG (45.61)	0.000
		(0.643/0.357)	GT (37.30)	
			TT (17.08)	
rs12444954	54155047	A/G	AA (46.08)	0.000
		(0.551/0.449)	AG (18.03)	
			GG (35.89)	
rs531076397	54155348	G/T	GG (100)	-
		(100/0)	GT (0)	
			TT (0)	

rs11865975	54155409	C/T	CC (98.75)	0
		(0.994/0.006)	CT (1.25)	
			TT (0)	
rs77601508	54155511	G/T	GG (99.84)	0.984
		(0.999/0.001)	GT (0.16)	
			TT (0)	
rs12929934	54155686	G/A	GG (57.37)	0.000
		(0.733/0.267)	GA (31.82)	
			AA (10.82)	
