

Supplementary

Table S1 Genotypes/alleles frequency distribution of *KCNQ1* and *KCNQ1OT1* polymorphisms between gastric cancers and controls as well as the association with risk of GC

SNP ID	Chromosome	Position	Band	Alleles A/B	Gene(s)	Role	P-HWE	MAF		OR	95%CI	P
								Case	Control			
rs6578283	11	2652345	11p15.5-p15.4	A/G	KCNQ1	Intron-variant	0.248	0.208	0.195	1.08	0.900 -1.297	0.407
rs231348	11	2652451	11p15.5-p15.4	C/T	KCNQ1	Intron-variant	0.181	0.115	0.106	1.09	0.861 -1.373	0.482
rs760419	11	2662127	11p15.5-p15.4	A/G	KCNQ1	Intron-variant	0.621	0.335	0.332	1.01	0.865 -1.181	0.894
rs10832514	11	2667296	11p15.5	A/G	KCNQ1OT1	Intron-variant	0.715	0.118	0.111	1.07	0.852 -1.349	0.551
rs231361	11	2670270	11p15.5	C/T	KCNQ1OT1	Intron-variant	0.914	0.214	0.217	0.98	0.821 -1.172	0.833
rs231359	11	2673376	11p15.5	G/T	KCNQ1OT1	Intron-variant	0.915	0.213	0.219	0.96	0.807 -1.153	0.694
rs7128926	11	2675514	11p15.5	A/G	KCNQ1OT1	Intron-variant	1.000	0.090	0.092	0.98	0.759 -1.263	0.871
rs231356	11	2684113	11p15.5	A/G/T	KCNQ1OT1	Intron-variant	0.754	0.217	0.225	0.96	0.802 -1.142	0.627
rs231354	11	2685121	11p15.5	C/T	KCNQ1OT1	Intron-variant	0.428	0.123	0.133	0.92	0.737 -1.143	0.443
rs231352	11	2689592	11p15.5	C/G/T	KCNQ1OT1	Intron-variant	0.344	0.122	0.132	0.91	0.731 -1.135	0.404
rs7939976	11	2691056	11p15.5	A/G	KCNQ1OT1	Intron-variant	1.000	0.087	0.089	0.98	0.754 -1.264	0.857

Note: A/B stands for minor/major alleles on the control sample frequencies. CI, confidence interval; HWE, Hardy-Weinberg equilibrium; MAF, minor allelic frequency; ORs, odds ratios; HWE P values ≤ 0.05 were excluded; P values ≤ 0.05 indicate statistical significance.

Table S2 Logistic regression analysis of the association between prominent SNPs with gastric cancer

Genotype	Controls (%)	GC (%)	Crude OR (95% CI)	P	Adjusted OR (95% CI)	P
rs6578283						
Codominant						
A/A	494 (65.4%)	431 (63.3%)	1.00	0.73	1.00	0.4
A/G	227 (30.1%)	217 (31.9%)	1.09 (0.87-1.36)		1.17 (0.92-1.48)	
G/G	34 (4.5%)	33 (4.8%)	1.11 (0.68-1.82)		1.18 (0.70-1.98)	
Dominant						
A/A	494 (65.4%)	431 (63.3%)	1.00	0.43	1.00	0.18
A/G-G/G	261 (34.6%)	250 (36.7%)	1.09 (0.88-1.35)		1.17 (0.93-1.47)	
Recessive						
A/A-A/G	721 (95.5%)	648 (95.2%)	1.00	0.76	1.00	0.67
G/G	34 (4.5%)	33 (4.8%)	1.08 (0.66-1.76)		1.12 (0.67-1.87)	
Log-additive	---	---	1.07 (0.90-1.28)	0.44	1.13 (0.94-1.36)	0.2
rs231348						
Codominant						
C/C	607 (80.3%)	536 (78.8%)	1.00	0.79	1.00	0.54
C/T	137 (18.1%)	132 (19.4%)	1.09 (0.84-1.42)		1.14 (0.86-1.50)	
T/T	12 (1.6%)	12 (1.8%)	1.13 (0.50-2.54)		1.36 (0.58-3.23)	
Dominant						
C/C	607 (80.3%)	536 (78.8%)	1.00	0.49	1.00	0.3
C/T-T/T	149 (19.7%)	144 (21.2%)	1.09 (0.85-1.41)		1.15 (0.88-1.51)	
Recessive						
C/C-C/T	744 (98.4%)	668 (98.2%)	1.00	0.79	1.00	0.52
T/T	12 (1.6%)	12 (1.8%)	1.11 (0.50-2.50)		1.33 (0.56-3.14)	
Log-additive	---	---	1.08 (0.86-1.36)	0.49	1.14 (0.90-1.46)	0.27
rs760419						
Codominant						
A/A	336 (45%)	308 (45.2%)	1.00	0.9	1.00	0.96
A/G	324 (43.4%)	290 (42.6%)	0.97 (0.78-1.21)		0.99 (0.79-1.25)	
G/G	86 (11.5%)	83 (12.2%)	1.05 (0.75-1.47)		1.05 (0.73-1.49)	
Dominant						
A/A	336 (45%)	308 (45.2%)	1.00	0.9	1.00	0.96
A/G-G/G	410 (55%)	373 (54.8%)	0.99 (0.80-1.22)		1.01 (0.81-1.25)	
Recessive						
A/A-A/G	660 (88.5%)	598 (87.8%)	1.00	0.7	1.00	0.78
G/G	86 (11.5%)	83 (12.2%)	1.07 (0.77-1.47)		1.05 (0.75-1.47)	
Log-additive	---	---	1.01 (0.86-1.17)	0.93	1.01 (0.86-1.19)	0.87
rs10832514						
Codominant						
A/A	598 (79.1%)	528 (77.5%)	1.00	0.71	1.00	0.39
A/G	148 (19.6%)	145 (21.3%)	1.11 (0.86-1.43)		1.20 (0.91-1.57)	
G/G	10 (1.3%)	8 (1.2%)	0.91 (0.35-2.31)		0.83 (0.30-2.23)	
Dominant						
A/A	598 (79.1%)	528 (77.5%)	1.00	0.47	1.00	0.24
A/G-G/G	158 (20.9%)	153 (22.5%)	1.10 (0.85-1.41)		1.17 (0.90-1.53)	
Recessive						
A/A-A/G	746 (98.7%)	673 (98.8%)	1.00	0.8	1.00	0.65
G/G	10 (1.3%)	8 (1.2%)	0.89 (0.35-2.26)		0.80 (0.29-2.15)	
Log-additive	---	---	1.07 (0.85-1.35)	0.55	1.13 (0.88-1.44)	0.34

Table S2 (continued)

Table S2 (continued)

Genotype	Controls (%)	GC (%)	Crude OR (95% CI)	P	Adjusted OR (95% CI)	P
rs231361						
Codominant						
A/A	463 (61.3%)	418 (61.5%)	1.00	0.9	1.00	0.78
A/G	256 (33.9%)	233 (34.3%)	1.01 (0.81-1.26)		1.06 (0.84-1.34)	
G/G	36 (4.8%)	29 (4.3%)	0.89 (0.54-1.48)		0.89 (0.52-1.52)	
Dominant						
A/A	463 (61.3%)	418 (61.5%)	1.00	0.95	1.00	0.73
A/G-G/G	292 (38.7%)	262 (38.5%)	0.99 (0.80-1.23)		1.04 (0.83-1.30)	
Recessive						
A/A-A/G	719 (95.2%)	651 (95.7%)	1.00	0.65	1.00	0.61
G/G	36 (4.8%)	29 (4.3%)	0.89 (0.54-1.47)		0.87 (0.51-1.48)	
Log-additive	---	---	0.98 (0.82-1.17)	0.83	1.01 (0.84-1.22)	0.91
rs231359						
Codominant						
A/A	460 (60.9%)	420 (61.8%)	1.00	0.92	1.00	0.86
A/C	260 (34.4%)	231 (34%)	0.97 (0.78-1.21)		1.05 (0.83-1.32)	
C/C	35 (4.6%)	29 (4.3%)	0.91 (0.55-1.51)		0.92 (0.54-1.57)	
Dominant						
A/A	460 (60.9%)	420 (61.8%)	1.00	0.74	1.00	0.79
A/C-C/C	295 (39.1%)	260 (38.2%)	0.97 (0.78-1.19)		1.03 (0.83-1.29)	
Recessive						
A/A-A/C	720 (95.4%)	651 (95.7%)	1.00	0.73	1.00	0.71
C/C	35 (4.6%)	29 (4.3%)	0.92 (0.55-1.52)		0.90 (0.53-1.54)	
Log-additive	---	---	0.96 (0.81-1.15)	0.69	1.01 (0.84-1.22)	0.92
rs7128926						
Codominant						
A/A	622 (82.4%)	560 (82.2%)	1.00	0.41	1.00	0.27
A/G	127 (16.8%)	119 (17.5%)	1.04 (0.79-1.37)		1.12 (0.84-1.50)	
G/G	6 (0.8%)	2 (0.3%)	0.37 (0.07-1.84)		0.34 (0.07-1.76)	
Dominant						
A/A	622 (82.4%)	560 (82.2%)	1.00	0.94	1.00	0.58
A/G-G/G	133 (17.6%)	121 (17.8%)	1.01 (0.77-1.33)		1.08 (0.82-1.44)	
Recessive						
A/A-A/G	749 (99.2%)	679 (99.7%)	1.00	0.19	1.00	0.16
G/G	6 (0.8%)	2 (0.3%)	0.37 (0.07-1.83)		0.33 (0.06-1.72)	
Log-additive	---	---	0.98 (0.76-1.27)	0.87	1.04 (0.79-1.36)	0.79
rs231356						
Codominant						
T/T	452 (59.8%)	415 (60.9%)	1.00	0.88	1.00	0.93
A/T	268 (35.5%)	236 (34.6%)	0.96 (0.77-1.19)		1.03 (0.82-1.30)	
A/A	36 (4.8%)	30 (4.4%)	0.91 (0.55-1.50)		0.94 (0.55-1.60)	
Dominant						
T/T	452 (59.8%)	415 (60.9%)	1.00	0.65	1.00	0.86
A/T-A/A	304 (40.2%)	266 (39.1%)	0.95 (0.77-1.18)		1.02 (0.82-1.27)	
Recessive						
T/T-A/T	720 (95.2%)	651 (95.6%)	1.00	0.75	1.00	0.79
A/A	36 (4.8%)	30 (4.4%)	0.92 (0.56-1.51)		0.93 (0.55-1.57)	
Log-additive	---	---	0.96 (0.80-1.14)	0.62	1.00 (0.83-1.21)	0.96

Table S2 (continued)

Table S2 (continued)

Genotype	Controls (%)	GC (%)	Crude OR (95% CI)	P	Adjusted OR (95% CI)	P
rs231354						
Codominant						
C/C	571 (75.5%)	520 (76.4%)	1.00	0.25	1.00	0.23
C/T	169 (22.4%)	154 (22.6%)	1.00 (0.78-1.28)		1.05 (0.81-1.36)	
T/T	16 (2.1%)	7 (1%)	0.48 (0.20-1.18)		0.47 (0.18-1.19)	
Dominant						
C/C	571 (75.5%)	520 (76.4%)	1.00	0.71	1.00	0.97
C/T-T/T	185 (24.5%)	161 (23.6%)	0.96 (0.75-1.22)		1.00 (0.77-1.28)	
Recessive						
C/C-C/T	740 (97.9%)	674 (99%)	1.00	0.095	1.00	0.093
T/T	16 (2.1%)	7 (1%)	0.48 (0.20-1.17)		0.46 (0.18-1.18)	
Log-additive	---	---	0.92 (0.74-1.14)	0.44	0.95 (0.75-1.19)	0.64
rs231352						
Codominant						
C/C	572 (75.7%)	522 (76.7%)	1.00	0.25	1.00	0.23
C/T	168 (22.2%)	152 (22.3%)	0.99 (0.77-1.27)		1.04 (0.80-1.35)	
T/T	16 (2.1%)	7 (1%)	0.48 (0.20-1.17)		0.47 (0.18-1.19)	
Dominant						
C/C	572 (75.7%)	522 (76.7%)	1.00	0.66	1.00	0.92
C/T-T/T	184 (24.3%)	159 (23.4%)	0.95 (0.74-1.21)		0.99 (0.77-1.27)	
Recessive						
C/C-C/T	740 (97.9%)	674 (99%)	1.00	0.095	1.00	0.093
T/T	16 (2.1%)	7 (1%)	0.48 (0.20-1.17)		0.46 (0.18-1.18)	
Log-additive	---	---	0.91 (0.73-1.13)	0.4	0.94 (0.75-1.18)	0.6
rs7939976						
Codominant						
A/A	627 (82.9%)	564 (82.8%)	1.00	0.41	1.00	0.3
A/G	123 (16.3%)	115 (16.9%)	1.04 (0.79-1.37)		1.11 (0.83-1.48)	
G/G	6 (0.8%)	2 (0.3%)	0.37 (0.07-1.84)		0.34 (0.07-1.75)	
Dominant						
A/A	627 (82.9%)	564 (82.8%)	1.00	0.95	1.00	0.66
A/G-G/G	129 (17.1%)	117 (17.2%)	1.01 (0.77-1.33)		1.07 (0.80-1.42)	
Recessive						
A/A-A/G	750 (99.2%)	679 (99.7%)	1.00	0.19	1.00	0.16
G/G	6 (0.8%)	2 (0.3%)	0.37 (0.07-1.83)		0.33 (0.06-1.72)	
Log-additive	---	---	0.98 (0.75-1.27)	0.85	1.02 (0.78-1.34)	0.87

95% CI, 95% confidence interval; OR, odds ratio; adjusted OR and 95% CI were calculated using a conditional logistic regression adjusted with age and gender. P values <0.05 indicate statistical significance.

Table S3 Significant genetic variants associated with the susceptibility of gastric cancer in people \geq or $<$ 55 years old by gender

Genotype	Ages								Gender							
	Controls (%)	\geq 55 (%)	Adjusted OR (95% CI)	P*	Controls (%)	$<$ 55 (%)	Adjusted OR (95% CI)	P*	Controls (%)	Male (%)	Adjusted OR (95% CI)	P	Controls (%)	Female (%)	Adjusted OR (95% CI)	P
rs6578283																
Codominant																
A/A	220 (67.3%)	272 (63.3%)	1.00	0.16	274 (64%)	158 (63.2%)	1.00	0.51	323 (66.2%)	340 (64.5%)	1.00	0.61	171 (64%)	91 (59.1%)	1.00	0.63
A/G	97 (29.7%)	135 (31.4%)	1.30 (0.91-1.86)		130 (30.4%)	82 (32.8%)	1.07 (0.76-1.51)		143 (29.3%)	161 (30.6%)	1.15 (0.86-1.55)		84 (31.5%)	56 (36.4%)	1.23 (0.80-1.89)	
G/G	10 (3.1%)	23 (5.3%)	1.84 (0.78-4.32)		24 (5.6%)	10 (4%)	0.68 (0.31-1.47)		22 (4.5%)	26 (4.9%)	1.15 (0.61-2.20)		12 (4.5%)	7 (4.5%)	1.00 (0.37-2.65)	
Dominant																
A/A	220 (67.3%)	272 (63.3%)	1.00	0.079	274 (64%)	158 (63.2%)	1.00	0.95	323 (66.2%)	340 (64.5%)	1.00	0.32	171 (64%)	91 (59.1%)	1.00	0.38
A/G-G/G	107 (32.7%)	158 (36.7%)	1.36 (0.96-1.91)		154 (36%)	92 (36.8%)	1.01 (0.73-1.40)		165 (33.8%)	187 (35.5%)	1.15 (0.87-1.53)		96 (36%)	63 (40.9%)	1.20 (0.80-1.82)	
Recessive																
A/A-A/G	317 (96.9%)	407 (94.7%)	1.00	0.22	404 (94.4%)	240 (96%)	1.00	0.28	466 (95.5%)	501 (95.1%)	1.00	0.76	255 (95.5%)	147 (95.5%)	1.00	0.87
G/G	10 (3.1%)	23 (5.3%)	1.69 (0.72-3.93)		24 (5.6%)	10 (4%)	0.66 (0.31-1.42)		22 (4.5%)	26 (4.9%)	1.10 (0.58-2.09)		12 (4.5%)	7 (4.5%)	0.92 (0.35-2.43)	
Log-additive	---	---	1.32 (0.99-1.77)	0.056	---	---	0.95 (0.73-1.25)	0.73	---	---	1.12 (0.88-1.41)	0.35	---	---	1.13 (0.80-1.59)	0.5
rs231348																
Codominant																
C/C	272 (83.2%)	336 (78.3%)	1.00	0.11	335 (78.1%)	199 (79.6%)	1.00	0.74	392 (80.2%)	419 (79.7%)	1.00	0.84	215 (80.5%)	117 (76%)	1.00	0.51
C/T	52 (15.9%)	85 (19.8%)	1.42 (0.92-2.17)		85 (19.8%)	47 (18.8%)	0.91 (0.61-1.36)		89 (18.2%)	100 (19%)	1.09 (0.77-1.54)		48 (18%)	32 (20.8%)	1.19 (0.72-1.97)	
T/T	3 (0.9%)	8 (1.9%)	2.96 (0.62-14.09)		9 (2.1%)	4 (1.6%)	0.67 (0.20-2.24)		8 (1.6%)	7 (1.3%)	0.84 (0.27-2.62)		4 (1.5%)	5 (3.2%)	1.99 (0.51-7.76)	
Dominant																
C/C	272 (83.2%)	336 (78.3%)	1.00	0.062	335 (78.1%)	199 (79.6%)	1.00	0.54	392 (80.2%)	419 (79.7%)	1.00	0.69	215 (80.5%)	117 (76%)	1.00	0.37
C/T-T/T	55 (16.8%)	93 (21.7%)	1.48 (0.98-2.25)		94 (21.9%)	51 (20.4%)	0.89 (0.60-1.31)		97 (19.8%)	107 (20.3%)	1.07 (0.76-1.50)		52 (19.5%)	37 (24%)	1.25 (0.77-2.03)	
Recessive																
C/C-C/T	324 (99.1%)	421 (98.1%)	1.00	0.18	420 (97.9%)	246 (98.4%)	1.00	0.53	481 (98.4%)	519 (98.7%)	1.00	0.74	263 (98.5%)	149 (96.8%)	1.00	0.35
T/T	3 (0.9%)	8 (1.9%)	2.77 (0.58-13.16)		9 (2.1%)	4 (1.6%)	0.68 (0.21-2.27)		8 (1.6%)	7 (1.3%)	0.82 (0.26-2.57)		4 (1.5%)	5 (3.2%)	1.92 (0.49-7.47)	
Log-additive	---	---	1.48 (1.01-2.16)	0.042	---	---	0.88 (0.63-1.24)	0.47	---	---	1.04 (0.77-1.41)	0.79	---	---	1.26 (0.83-1.92)	0.28
rs760419																
Codominant																
A/A	145 (45.2%)	190 (44.2%)	1.00	0.85	191 (44.9%)	117 (46.8%)	1.00	0.66	232 (48%)	237 (45%)	1.00	0.66	104 (39.5%)	71 (46.1%)	1.00	0.3
A/G	142 (44.2%)	189 (44%)	1.01 (0.72-1.43)		182 (42.8%)	101 (40.4%)	0.86 (0.61-1.21)		200 (41.4%)	225 (42.7%)	1.05 (0.79-1.40)		124 (47.1%)	65 (42.2%)	0.72 (0.46-1.10)	
G/G	34 (10.6%)	51 (11.9%)	1.18 (0.67-2.06)		52 (12.2%)	32 (12.8%)	1.00 (0.60-1.64)		51 (10.6%)	65 (12.3%)	1.23 (0.79-1.92)		35 (13.3%)	18 (11.7%)	0.76 (0.40-1.46)	
Dominant																
A/A	145 (45.2%)	190 (44.2%)	1.00	0.8	191 (44.9%)	117 (46.8%)	1.00	0.47	232 (48%)	237 (45%)	1.00	0.55	104 (39.5%)	71 (46.1%)	1.00	0.12
A/G-G/G	176 (54.8%)	240 (55.8%)	1.04 (0.75-1.45)		234 (55.1%)	133 (53.2%)	0.89 (0.65-1.22)		251 (52%)	290 (55%)	1.09 (0.83-1.42)		159 (60.5%)	83 (53.9%)	0.73 (0.48-1.09)	
Recessive																
A/A-A/G	287 (89.4%)	379 (88.1%)	1.00	0.57	373 (87.8%)	218 (87.2%)	1.00	0.79	432 (89.4%)	462 (87.7%)	1.00	0.4	228 (86.7%)	136 (88.3%)	1.00	0.74
G/G	34 (10.6%)	51 (11.9%)	1.17 (0.69-1.99)		52 (12.2%)	32 (12.8%)	1.07 (0.66-1.72)		51 (10.6%)	65 (12.3%)	1.20 (0.78-1.84)		35 (13.3%)	18 (11.7%)	0.90 (0.49-1.67)	
Log-additive	---	---	1.06 (0.83-1.35)	0.65	---	---	0.95 (0.76-1.20)	0.69	---	---	1.09 (0.89-1.33)	0.4	---	---	0.82 (0.61-1.11)	0.2
rs10832514																
Codominant																
A/A	256 (78.3%)	340 (79.1%)	1.00	0.97	342 (79.7%)	188 (75.2%)	1.00	0.32	393 (80.4%)	412 (78.2%)	1.00	0.48	205 (76.8%)	116 (75.3%)	1.00	0.52
A/G	67 (20.5%)	84 (19.5%)	0.95 (0.64-1.43)		81 (18.9%)	60 (24%)	1.30 (0.89-1.90)		91 (18.6%)	108 (20.5%)	1.23 (0.87-1.74)		57 (21.4%)	37 (24%)	1.12 (0.69-1.81)	
G/G	4 (1.2%)	6 (1.4%)	0.95 (0.20-4.57)		6 (1.4%)	2 (0.8%)	0.60 (0.12-3.01)		5 (1%)	7 (1.3%)	1.13 (0.30-4.27)		5 (1.9%)	1 (0.6%)	0.36 (0.04-3.16)	
Dominant																
A/A	256 (78.3%)	340 (79.1%)	1.00	0.81	342 (79.7%)	188 (75.2%)	1.00	0.25	393 (80.4%)	412 (78.2%)	1.00	0.23	205 (76.8%)	116 (75.3%)	1.00	0.81
A/G-G/G	71 (21.7%)	90 (20.9%)	0.95 (0.64-1.42)		87 (20.3%)	62 (24.8%)	1.25 (0.86-1.82)		96 (19.6%)	115 (21.8%)	1.23 (0.88-1.72)		62 (23.2%)	38 (24.7%)	1.06 (0.66-1.69)	
Recessive																
A/A-A/G	323 (98.8%)	424 (98.6%)	1.00	0.96	423 (98.6%)	248 (99.2%)	1.00	0.47	484 (99%)	520 (98.7%)	1.00	0.9	262 (98.1%)	153 (99.3%)	1.00	0.3
G/G	4 (1.2%)	6 (1.4%)	0.96 (0.20-4.60)		6 (1.4%)	2 (0.8%)	0.56 (0.11-2.84)		5 (1%)	7 (1.3%)	1.09 (0.29-4.09)		5 (1.9%)	1 (0.6%)	0.35 (0.04-3.07)	
Log-additive	---	---	0.96 (0.66-1.38)	0.82	---	---	1.17 (0.83-1.66)	0.37	---	---	1.20 (0.88-1.64)	0.25	---	---	0.99 (0.65-1.53)	0.98

Table S3 (continued)

Table S3 (continued)

Genotype	Ages								Gender							
	Controls (%)	≥55 (%)	Adjusted OR (95% CI)	P*	Controls (%)	<55 (%)	Adjusted OR (95% CI)	P*	Controls (%)	Male (%)	Adjusted OR (95% CI)	P	Controls (%)	Female (%)	Adjusted OR (95% CI)	P
rs231361																
Codominant																
A/A	205 (62.7%)	270 (62.8%)	1.00	0.62	258 (60.3%)	148 (59.4%)	1.00	0.087	296 (60.7%)	321 (61%)	1.00	0.38	167 (62.5%)	97 (63%)	1.00	0.95
A/G	108 (33%)	137 (31.9%)	1.16 (0.82-1.65)		148 (34.6%)	95 (38.1%)	1.18 (0.84-1.64)		170 (34.8%)	185 (35.2%)	1.16 (0.87-1.54)		86 (32.2%)	48 (31.2%)	0.96 (0.62-1.48)	
G/G	14 (4.3%)	23 (5.3%)	1.29 (0.60-2.80)		22 (5.1%)	6 (2.4%)	0.44 (0.17-1.12)		22 (4.5%)	20 (3.8%)	0.75 (0.37-1.50)		14 (5.2%)	9 (5.8%)	1.10 (0.45-2.66)	
Dominant																
A/A	205 (62.7%)	270 (62.8%)	1.00	0.34	258 (60.3%)	148 (59.4%)	1.00	0.67	296 (60.7%)	321 (61%)	1.00	0.48	167 (62.5%)	97 (63%)	1.00	0.91
A/G-G/G	122 (37.3%)	160 (37.2%)	1.18 (0.84-1.65)		170 (39.7%)	101 (40.6%)	1.07 (0.78-1.48)		192 (39.3%)	205 (39%)	1.11 (0.84-1.46)		100 (37.5%)	57 (37%)	0.98 (0.65-1.48)	
Recessive																
A/A-A/G	313 (95.7%)	407 (94.7%)	1.00	0.6	406 (94.9%)	243 (97.6%)	1.00	0.046	466 (95.5%)	506 (96.2%)	1.00	0.33	253 (94.8%)	145 (94.2%)	1.00	0.81
G/G	14 (4.3%)	23 (5.3%)	1.23 (0.57-2.63)		22 (5.1%)	6 (2.4%)	0.41 (0.16-1.05)		22 (4.5%)	20 (3.8%)	0.71 (0.36-1.41)		14 (5.2%)	9 (5.8%)	1.11 (0.46-2.67)	
Log-additive	---	---	1.15 (0.87-1.52)	0.33	---	---	0.96 (0.73-1.26)	0.76	---	---	1.03 (0.82-1.31)	0.78	---	---	1.00 (0.71-1.40)	1
rs231359																
Codominant																
A/A	204 (62.4%)	271 (63.2%)	1.00	0.58	256 (59.8%)	149 (59.6%)	1.00	0.11	299 (61.3%)	326 (62%)	1.00	0.43	161 (60.3%)	94 (61%)	1.00	0.85
A/C	110 (33.6%)	135 (31.5%)	1.15 (0.81-1.64)		150 (35%)	95 (38%)	1.12 (0.80-1.55)		167 (34.2%)	180 (34.2%)	1.13 (0.85-1.51)		93 (34.8%)	51 (33.1%)	0.91 (0.59-1.40)	
C/C	13 (4%)	23 (5.4%)	1.38 (0.63-3.05)		22 (5.1%)	6 (2.4%)	0.43 (0.17-1.09)		22 (4.5%)	20 (3.8%)	0.74 (0.37-1.49)		13 (4.9%)	9 (5.8%)	1.15 (0.47-2.82)	
Dominant																
A/A	204 (62.4%)	271 (63.2%)	1.00	0.34	256 (59.8%)	149 (59.6%)	1.00	0.89	299 (61.3%)	326 (62%)	1.00	0.56	161 (60.3%)	94 (61%)	1.00	0.77
A/C-C/C	123 (37.6%)	158 (36.8%)	1.18 (0.84-1.65)		172 (40.2%)	101 (40.4%)	1.02 (0.74-1.41)		189 (38.7%)	200 (38%)	1.09 (0.82-1.43)		106 (39.7%)	60 (39%)	0.94 (0.62-1.42)	
Recessive																
A/A-A/C	314 (96%)	406 (94.6%)	1.00	0.48	406 (94.9%)	244 (97.6%)	1.00	0.045	466 (95.5%)	506 (96.2%)	1.00	0.33	254 (95.1%)	145 (94.2%)	1.00	0.71
C/C	13 (4%)	23 (5.4%)	1.32 (0.60-2.88)		22 (5.1%)	6 (2.4%)	0.41 (0.16-1.04)		22 (4.5%)	20 (3.8%)	0.71 (0.36-1.41)		13 (4.9%)	9 (5.8%)	1.19 (0.49-2.88)	
Log-additive	---	---	1.16 (0.88-1.54)	0.3	---	---	0.93 (0.70-1.22)	0.58	---	---	1.02 (0.81-1.29)	0.87	---	---	0.98 (0.70-1.38)	0.92
rs7128926																
Codominant																
A/A	265 (81%)	358 (83.3%)	1.00	0.81	357 (83.4%)	201 (80.4%)	1.00	0.12	405 (83%)	435 (82.5%)	1.00	0.25	217 (81.3%)	125 (81.2%)	1.00	0.94
A/G	59 (18%)	70 (16.3%)	1.09 (0.71-1.67)		68 (15.9%)	49 (19.6%)	1.29 (0.85-1.94)		80 (16.4%)	91 (17.3%)	1.18 (0.83-1.69)		47 (17.6%)	28 (18.2%)	0.99 (0.59-1.68)	
G/G	3 (0.9%)	2 (0.5%)	0.60 (0.08-4.36)		3 (0.7%)	0 (0%)	0.00 (0.00-NA)		3 (0.6%)	1 (0.2%)	0.22 (0.02-2.34)		3 (1.1%)	1 (0.6%)	0.67 (0.07-6.58)	
Dominant																
A/A	265 (81%)	358 (83.3%)	1.00	0.77	357 (83.4%)	201 (80.4%)	1.00	0.32	405 (83%)	435 (82.5%)	1.00	0.47	217 (81.3%)	125 (81.2%)	1.00	0.92
A/G-G/G	62 (19%)	72 (16.7%)	1.07 (0.70-1.62)		71 (16.6%)	49 (19.6%)	1.23 (0.82-1.84)		83 (17%)	92 (17.5%)	1.14 (0.80-1.62)		50 (18.7%)	29 (18.8%)	0.98 (0.58-1.63)	
Recessive																
A/A-A/G	324 (99.1%)	428 (99.5%)	1.00	0.6	425 (99.3%)	250 (100%)	1.00	0.091	485 (99.4%)	526 (99.8%)	1.00	0.17	264 (98.9%)	153 (99.3%)	1.00	0.72
G/G	3 (0.9%)	2 (0.5%)	0.59 (0.08-4.29)		3 (0.7%)	0 (0%)	0.00 (0.00-NA)		3 (0.6%)	1 (0.2%)	0.21 (0.02-2.28)		3 (1.1%)	1 (0.6%)	0.67 (0.07-6.58)	
Log-additive	---	---	1.04 (0.70-1.54)	0.86	---	---	1.16 (0.78-1.71)	0.47	---	---	1.09 (0.77-1.53)	0.63	---	---	0.96 (0.59-1.55)	0.87
rs231356																
Codominant																
T/T	200 (61.2%)	268 (62.3%)	1.00	0.42	252 (58.7%)	147 (58.8%)	1.00	0.09	293 (59.9%)	322 (61.1%)	1.00	0.53	159 (59.5%)	93 (60.4%)	1.00	0.77
A/T	114 (34.9%)	138 (32.1%)	1.11 (0.78-1.57)		154 (35.9%)	97 (38.8%)	1.11 (0.80-1.54)		174 (35.6%)	185 (35.1%)	1.10 (0.83-1.46)		94 (35.2%)	51 (33.1%)	0.89 (0.58-1.37)	
A/A	13 (4%)	24 (5.6%)	1.65 (0.74-3.67)		23 (5.4%)	6 (2.4%)	0.41 (0.16-1.05)		22 (4.5%)	20 (3.8%)	0.75 (0.38-1.51)		14 (5.2%)	10 (6.5%)	1.18 (0.50-2.80)	
Dominant																
T/T	200 (61.2%)	268 (62.3%)	1.00	0.38	252 (58.7%)	147 (58.8%)	1.00	0.95	293 (59.9%)	322 (61.1%)	1.00	0.68	159 (59.5%)	93 (60.4%)	1.00	0.72
A/T-A/A	127 (38.8%)	162 (37.7%)	1.16 (0.83-1.63)		177 (41.3%)	103 (41.2%)	1.01 (0.73-1.39)		196 (40.1%)	205 (38.9%)	1.06 (0.80-1.40)		108 (40.5%)	61 (39.6%)	0.93 (0.62-1.40)	

Table S3 (continued)

Table S3 (continued)

Genotype	Ages								Gender							
	Controls (%)	≥55 (%)	Adjusted OR (95% CI)	P*	Controls (%)	<55 (%)	Adjusted OR (95% CI)	P*	Controls (%)	Male (%)	Adjusted OR (95% CI)	P	Controls (%)	Female (%)	Adjusted OR (95% CI)	P
Recessive																
T/T-A/T	314 (96%)	406 (94.4%)	1.00	0.24	406 (94.6%)	244 (97.6%)	1.00	0.035	467 (95.5%)	507 (96.2%)	1.00	0.36	253 (94.8%)	144 (93.5%)	1.00	0.63
A/A	13 (4%)	24 (5.6%)	1.59 (0.73-3.50)		23 (5.4%)	6 (2.4%)	0.40 (0.16-1.00)		22 (4.5%)	20 (3.8%)	0.73 (0.37-1.44)		14 (5.2%)	10 (6.5%)	1.23 (0.53-2.88)	
A/T	114 (34.9%)	138 (32.1%)	1.07 (0.76-1.51)		154 (35.9%)	97 (38.8%)	1.16 (0.84-1.61)		174 (35.6%)	185 (35.1%)	1.12 (0.85-1.48)		94 (35.2%)	51 (33.1%)	0.88 (0.57-1.34)	
Log-additive	---	---	1.18 (0.89-1.56)	0.24	---	---	0.91 (0.69-1.20)	0.51	---	---	1.00 (0.79-1.27)	0.97	---	---	0.98 (0.70-1.37)	0.91
rs231354																
Codominant																
C/C	259 (79.2%)	329 (76.5%)	1.00	0.56	312 (72.7%)	191 (76.4%)	1.00	0.0049	293 (59.9%)	322 (61.1%)	1.00	0.53	159 (59.5%)	93 (60.4%)	1.00	0.77
C/T	63 (19.3%)	94 (21.9%)	1.24 (0.83-1.86)		106 (24.7%)	59 (23.6%)	0.91 (0.63-1.32)		174 (35.6%)	185 (35.1%)	1.10 (0.83-1.46)		94 (35.2%)	51 (33.1%)	0.89 (0.58-1.37)	
T/T	5 (1.5%)	7 (1.6%)	1.27 (0.34-4.77)		11 (2.6%)	0 (0%)	0.00 (0.00-NA)		22 (4.5%)	20 (3.8%)	0.75 (0.38-1.51)		14 (5.2%)	10 (6.5%)	1.18 (0.50-2.80)	
Dominant																
C/C	259 (79.2%)	329 (76.5%)	1.00	0.28	312 (72.7%)	191 (76.4%)	1.00	0.3	293 (59.9%)	322 (61.1%)	1.00	0.68	159 (59.5%)	93 (60.4%)	1.00	0.72
C/T-T/T	68 (20.8%)	101 (23.5%)	1.24 (0.84-1.84)		117 (27.3%)	59 (23.6%)	0.83 (0.57-1.19)		196 (40.1%)	205 (38.9%)	1.06 (0.80-1.40)		108 (40.5%)	61 (39.6%)	0.93 (0.62-1.40)	
Recessive																
C/C-C/T	322 (98.5%)	423 (98.4%)	1.00	0.77	418 (97.4%)	250 (100%)	1.00	0.0013	467 (95.5%)	507 (96.2%)	1.00	0.36	253 (94.8%)	144 (93.5%)	1.00	0.63
T/T	5 (1.5%)	7 (1.6%)	1.21 (0.32-4.55)		11 (2.6%)	0 (0%)	0.00 (0.00-NA)		22 (4.5%)	20 (3.8%)	0.73 (0.37-1.44)		14 (5.2%)	10 (6.5%)	1.23 (0.53-2.88)	
Log-additive	---	---	1.21 (0.85-1.72)	0.29	---	---	0.76 (0.54-1.06)	0.1	---	---	1.00 (0.79-1.27)	0.97	---	---	0.98 (0.70-1.37)	0.91
rs231352																
Codominant																
C/C	259 (79.2%)	331 (77%)	1.00	0.67	313 (73%)	191 (76.4%)	1.00	0.0051	366 (74.8%)	405 (76.8%)	1.00	0.37	206 (77.2%)	117 (76%)	1.00	0.84
C/T	63 (19.3%)	92 (21.4%)	1.19 (0.79-1.79)		105 (24.5%)	59 (23.6%)	0.92 (0.64-1.34)		113 (23.1%)	117 (22.2%)	0.99 (0.72-1.36)		55 (20.6%)	35 (22.7%)	1.05 (0.64-1.71)	
T/T	5 (1.5%)	7 (1.6%)	1.26 (0.34-4.73)		11 (2.6%)	0 (0%)	0.00 (0.00-NA)		10 (2%)	5 (1%)	0.43 (0.13-1.43)		6 (2.2%)	2 (1.3%)	0.64 (0.13-3.27)	
Dominant																
C/C	259 (79.2%)	331 (77%)	1.00	0.38	313 (73%)	191 (76.4%)	1.00	0.33	366 (74.8%)	405 (76.8%)	1.00	0.7	206 (77.2%)	117 (76%)	1.00	0.96
C/T-T/T	68 (20.8%)	99 (23%)	1.19 (0.81-1.77)		116 (27%)	59 (23.6%)	0.83 (0.58-1.20)		123 (25.1%)	122 (23.1%)	0.94 (0.69-1.29)		61 (22.9%)	37 (24%)	1.01 (0.63-1.62)	
Recessive																
C/C-C/T	322 (98.5%)	423 (98.4%)	1.00	0.77	418 (97.4%)	250 (100%)	1.00	0.0013	479 (98%)	522 (99%)	1.00	0.16	261 (97.8%)	152 (98.7%)	1.00	0.57
T/T	5 (1.5%)	7 (1.6%)	1.21 (0.32-4.55)		11 (2.6%)	0 (0%)	0.00 (0.00-NA)		10 (2%)	5 (1%)	0.43 (0.13-1.44)		6 (2.2%)	2 (1.3%)	0.64 (0.13-3.22)	
Log-additive	---	---	1.17 (0.82-1.67)	0.38	---	---	0.76 (0.55-1.07)	0.11	---	---	0.90 (0.68-1.20)	0.48	---	---	0.98 (0.64-1.49)	0.91
rs7939976																
Codominant																
A/A	268 (82%)	358 (83.3%)	1.00	0.75	359 (83.7%)	205 (82%)	1.00	0.18	407 (83.2%)	437 (82.9%)	1.00	0.28	220 (82.4%)	127 (82.5%)	1.00	0.94
A/G	56 (17.1%)	70 (16.3%)	1.13 (0.73-1.74)		67 (15.6%)	45 (18%)	1.18 (0.78-1.80)		79 (16.2%)	89 (16.9%)	1.16 (0.81-1.66)		44 (16.5%)	26 (16.9%)	0.98 (0.57-1.68)	
G/G	3 (0.9%)	2 (0.5%)	0.60 (0.08-4.38)		3 (0.7%)	0 (0%)	0.00 (0.00-NA)		3 (0.6%)	1 (0.2%)	0.22 (0.02-2.34)		3 (1.1%)	1 (0.6%)	0.67 (0.07-6.57)	
Dominant																
A/A	268 (82%)	358 (83.3%)	1.00	0.66	359 (83.7%)	205 (82%)	1.00	0.56	407 (83.2%)	437 (82.9%)	1.00	0.54	220 (82.4%)	127 (82.5%)	1.00	0.89
A/G-G/G	59 (18%)	72 (16.7%)	1.10 (0.72-1.68)		70 (16.3%)	45 (18%)	1.13 (0.75-1.71)		82 (16.8%)	90 (17.1%)	1.12 (0.78-1.59)		47 (17.6%)	27 (17.5%)	0.96 (0.57-1.64)	
Recessive																
A/A-A/G	324 (99.1%)	428 (99.5%)	1.00	0.6	426 (99.3%)	250 (100%)	1.00	0.091	486 (99.4%)	526 (99.8%)	1.00	0.17	264 (98.9%)	153 (99.3%)	1.00	0.72
G/G	3 (0.9%)	2 (0.5%)	0.59 (0.08-4.29)		3 (0.7%)	0 (0%)	0.00 (0.00-NA)		3 (0.6%)	1 (0.2%)	0.21 (0.02-2.28)		3 (1.1%)	1 (0.6%)	0.67 (0.07-6.58)	
Log-additive	---	---	1.07 (0.71-1.59)	0.75	---	---	1.07 (0.72-1.60)	0.74	---	---	1.07 (0.76-1.50)	0.72	---	---	0.95 (0.58-1.55)	0.84

ORs: odds ratios; 95% CI: 95% confidence interval. *P values ≤0.05 indicate statistical significance.