

**Supplementary Table 8** Stepwise conditional analysis on HLA-DQ $\alpha$ 1:160D in combined cohort, using gender as covariate.

CHR	MARKER	F_A	F_U	ALT	OR	P value
6	DQA1:160:D	0.36	0.20	DQA1:160:D	NA	NA
6	DRB1:96:H	0.47	0.36	DRB1:96:H	1.64(1.45-1.84)	4.90E-16
6	DRB1:37:N	0.23	0.23	DRB1:37:N	0.49(0.41-0.58)	5.81E-16
6	DRB1:120:N	0.25	0.13	DRB1:120:N	1.81(1.55-2.12)	7.20E-14
6	DRB1:11:V	0.25	0.13	DRB1:11:V	1.79(1.53-2.09)	2.06E-13
6	DRB1:120:S	0.25	0.13	DRB1:120:S	1.75(1.50-2.04)	1.15E-12
6	DRB1:74:A	0.40	0.45	DRB1:74:A	0.64(0.57-0.73)	2.04E-12
6	DRB1:74:E	0.25	0.24	DRB1:74:E	0.56(0.48-0.67)	9.35E-12
6	DRB1:37:Y	0.33	0.23	DRB1:37:Y	1.55(1.36-1.76)	3.17E-11
6	DRB1:26:Y	0.21	0.18	DRB1:26:Y	0.53(0.43-0.64)	1.02E-10
6	DRB1*09:01	0.19	0.14	DRB1*09:01	0.49(0.39-0.61)	2.99E-10
6	DRB1:11:D	0.19	0.14	DRB1:11:D	0.49(0.39-0.61)	2.99E-10
6	DRB1:28:H	0.19	0.14	DRB1:28:H	0.49(0.39-0.61)	2.99E-10
6	DRB1:30:G	0.19	0.14	DRB1:30:G	0.49(0.39-0.61)	2.99E-10
6	DRB1:9:K	0.19	0.14	DRB1:9:K	0.49(0.39-0.61)	2.99E-10
6	DQA1*03:02	0.19	0.14	DQA1*03:02	0.49(0.39-0.62)	5.47E-10
6	DQA1*03:03	0.17	0.06	DQA1*03:03	2.03(1.62-2.53)	5.47E-10
6	DRB1*04:05	0.12	0.04	DRB1*04:05	2.09(1.64-2.67)	3.77E-09
6	DRB1:70:Q	0.43	0.35	DRB1:70:Q	1.43(1.27-1.61)	5.60E-09
6	DRB1*10:01	0.04	0.02	DRB1*10:01	2.95(2.05-4.26)	6.11E-09
6	DRB1:10:E	0.04	0.02	DRB1:10:E	2.95(2.05-4.26)	6.11E-09
6	DRB1:166:Q	0.04	0.02	DRB1:166:Q	2.95(2.05-4.26)	6.11E-09
6	DRB1:231:P	0.04	0.02	DRB1:231:P	2.95(2.05-4.26)	6.11E-09
6	DRB1:30:R	0.04	0.02	DRB1:30:R	2.95(2.05-4.26)	6.11E-09
6	DRB1:31:V	0.04	0.02	DRB1:31:V	2.95(2.05-4.26)	6.11E-09
6	DRB1:38:A	0.04	0.02	DRB1:38:A	2.95(2.05-4.26)	6.11E-09
6	DRB1:40:F	0.04	0.02	DRB1:40:F	2.95(2.05-4.26)	6.11E-09
6	DRB1:40:Y	0.04	0.02	DRB1:40:Y	2.95(2.05-4.26)	6.11E-09
6	DRB1:67:L	0.37	0.28	DRB1:67:L	1.43(1.27-1.61)	6.62E-09
6	DQA1*01:05	0.04	0.02	DQA1*01:05	2.90(2.02-4.16)	6.68E-09
6	DRB1:4:R	0.27	0.26	DRB1:4:R	0.64(0.55-0.75)	1.01E-08
6	B:77:D	0.05	0.02	B:77:D	2.40(1.77-3.26)	1.55E-08
6	DRB1:180:L	0.21	0.11	DRB1:180:L	1.62(1.37-1.92)	2.33E-08
6	DRB1:96:Y	0.21	0.11	DRB1:96:Y	1.62(1.37-1.92)	2.33E-08
6	DRB1:33:H	0.21	0.11	DRB1:33:H	1.60(1.35-1.90)	4.82E-08
6	DRB1:33:N	0.21	0.11	DRB1:33:N	1.60(1.35-1.90)	4.82E-08

A P-value less than  $5.0 \times 10^{-8}$  was used as the cut-off for significance.

ALT: Minor allele name (based on whole sample)

F\_A: Frequency of alt allele in cases

F\_U: Frequency of alt allele in controls

CI: confidence interval