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Supplemental Data

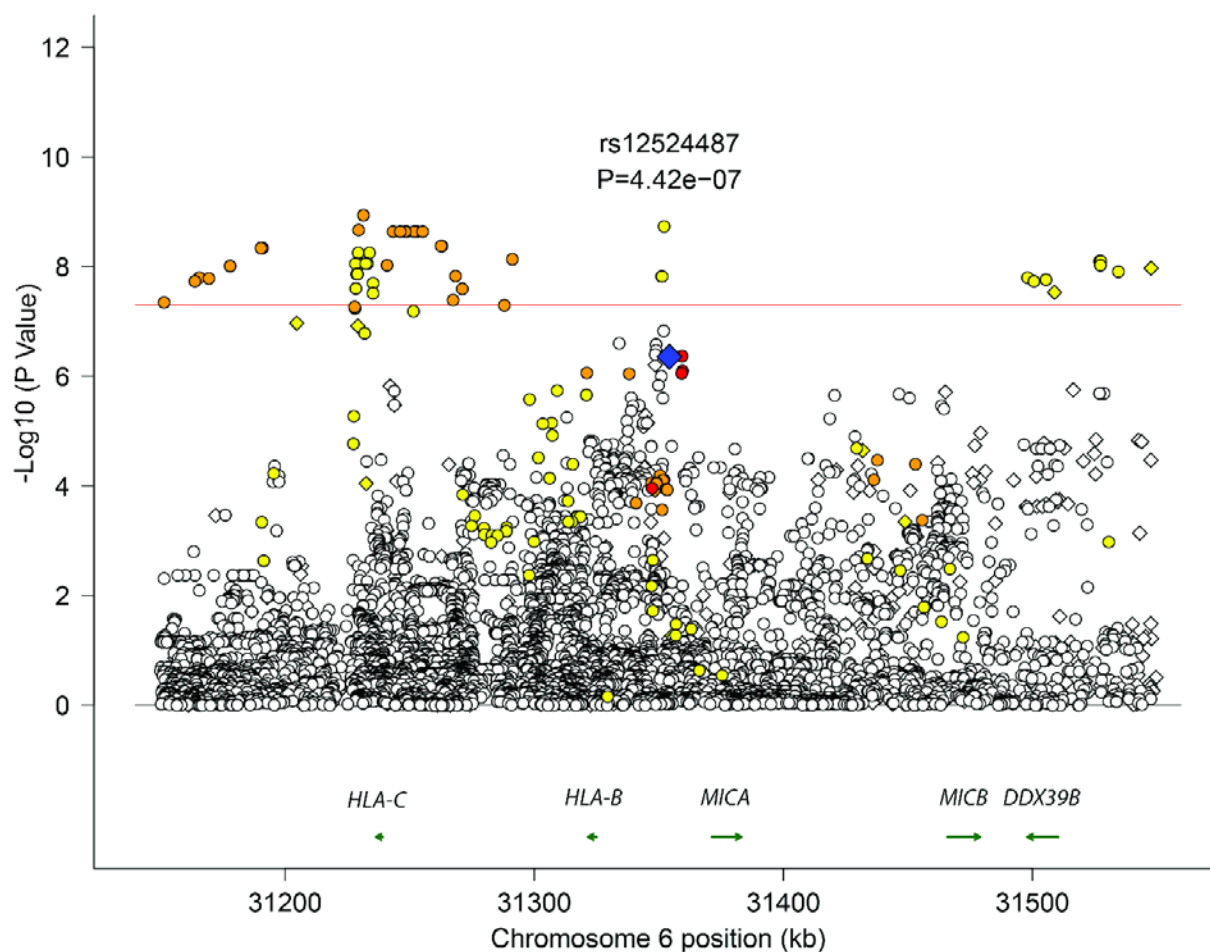
Identification of Multiple Genetic

Susceptibility Loci in Takayasu Arteritis

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Figure S1: Regional plots showing genetic association results in the Turkish cohort in the *HLA-B/MICA* locus (A), and the *HLA-DQB1/HLA-DRB1* locus (B). Genotyped and imputed variants are depicted with diamond-shaped symbols and circles, respectively. The colors represent r^2 values with the index SNP in each locus (white, $r^2 < 0.2$; yellow, $r^2 \geq 0.2-0.5$; orange, $r^2 \geq 0.5-0.8$; red, $r^2 \geq 0.8$).

A



B

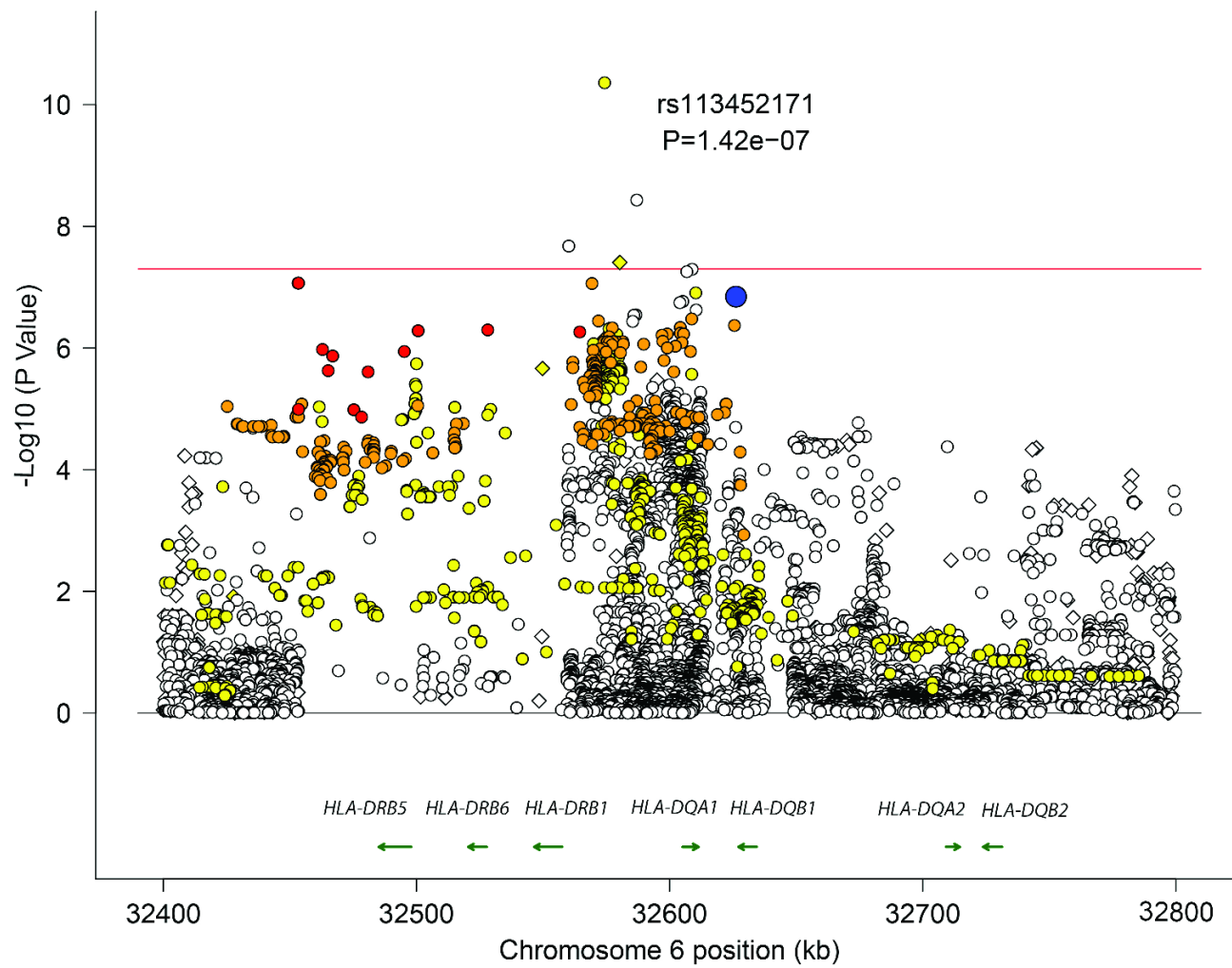
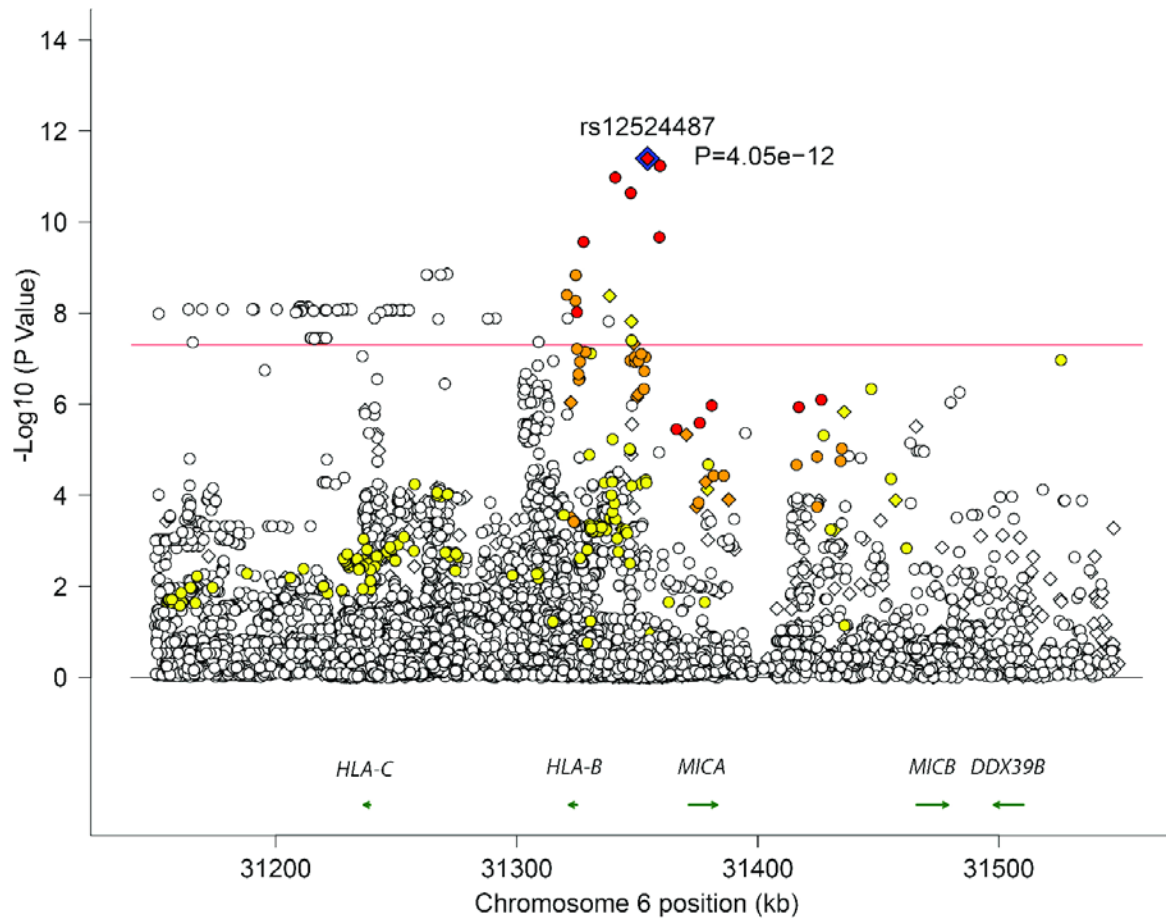


Figure S2: Regional plots showing genetic association results in the European-American cohort in the *HLA-B/MICA* locus (A), and the *HLA-DQB1/HLA-DRB1* locus (B). Genotyped and imputed variants are depicted with diamond-shaped symbols and circles, respectively. The colors represent r^2 values with the index SNP in each locus (white, $r^2 < 0.2$; yellow, $r^2 \geq 0.2-0.5$; orange, $r^2 \geq 0.5-0.8$; red, $r^2 \geq 0.8$).

A



B

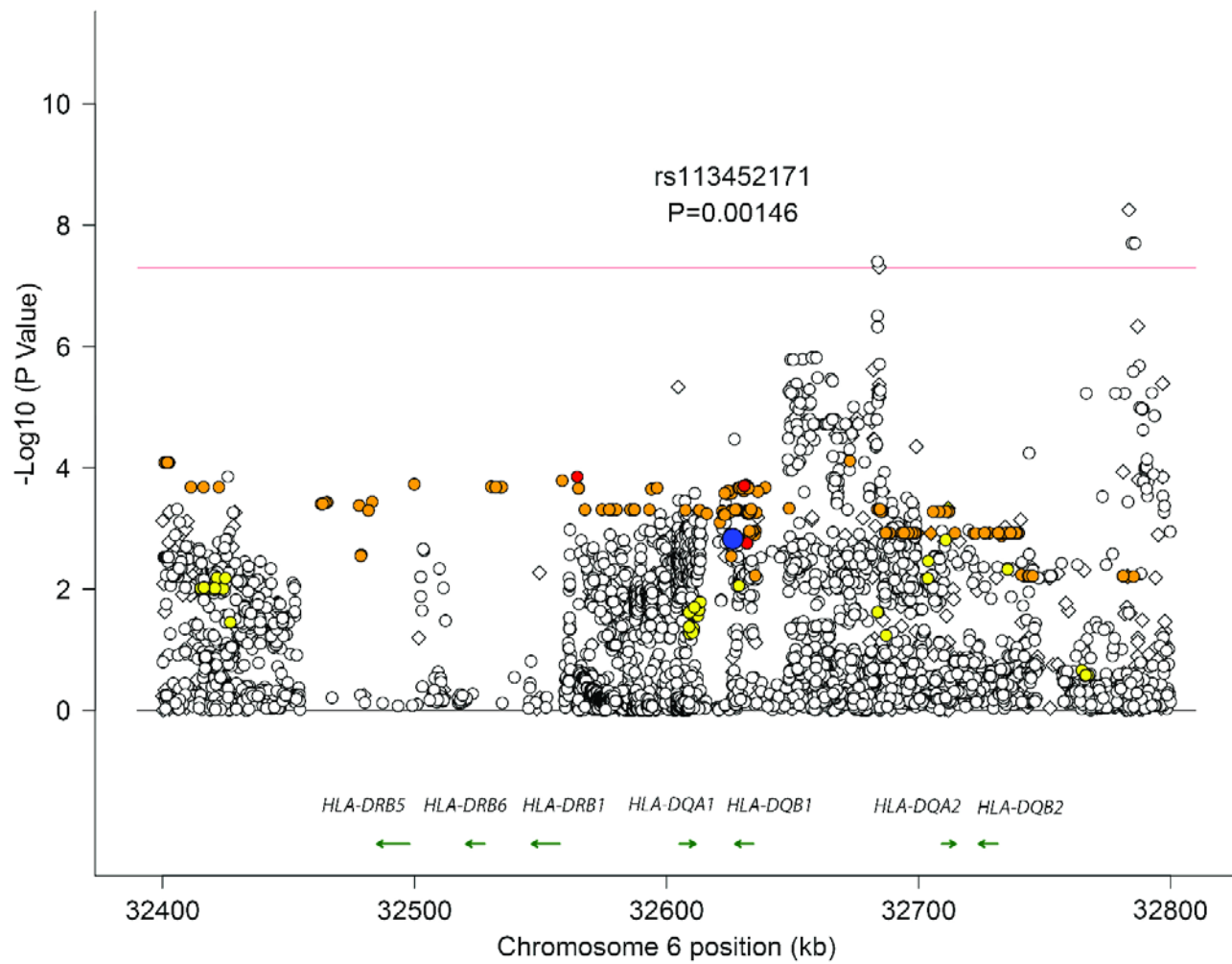


Figure S3: The Takayasu's arteritis associated variant in the *FCGR2A/FCGR3A* locus is associated with allele-specific expression difference in *FCGR2A*. The disease-associated allele in rs2099684 increases *FCGR2A* mRNA expression in lymphoblastoid cells ($P= 3 \times 10^{-4}$).

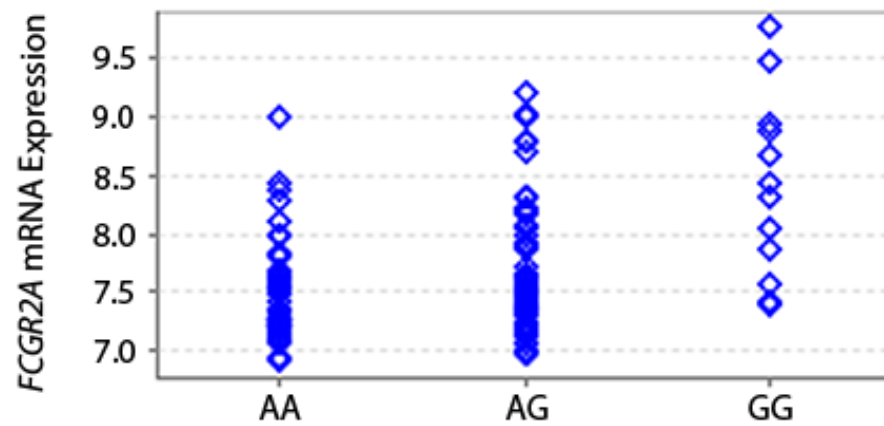
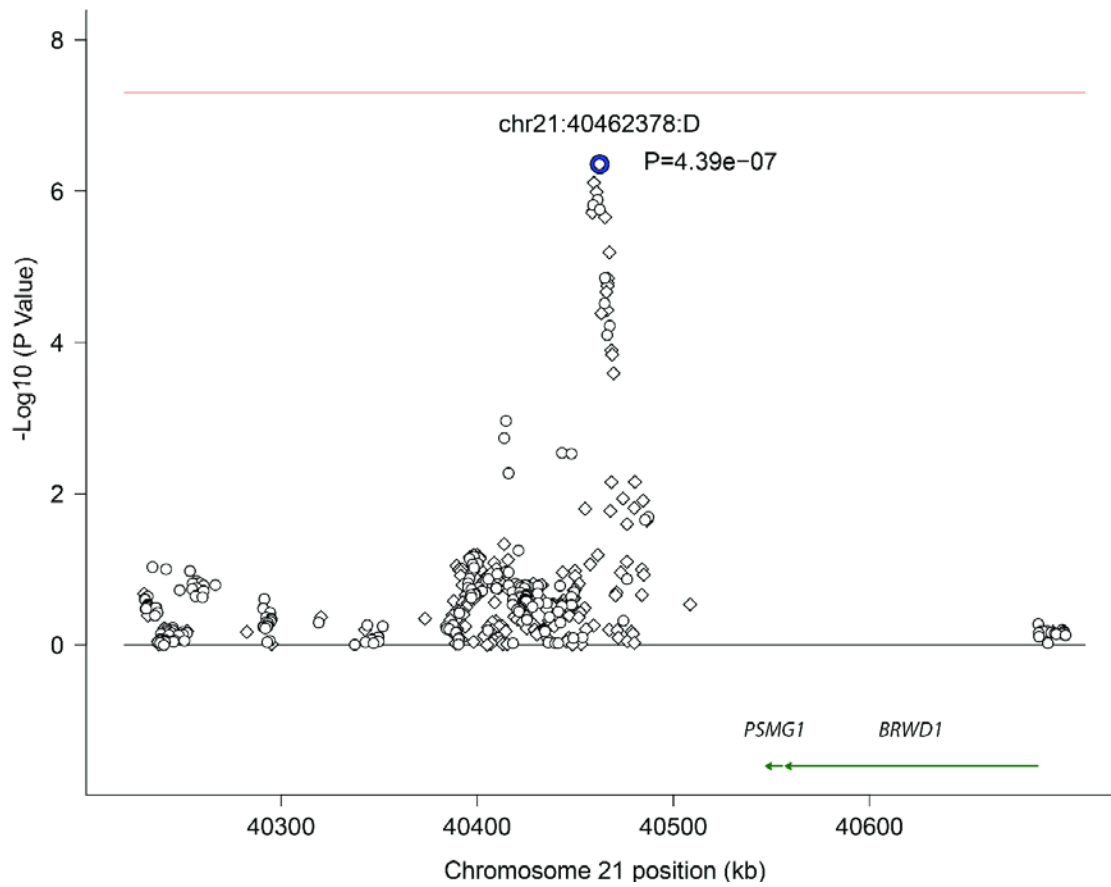
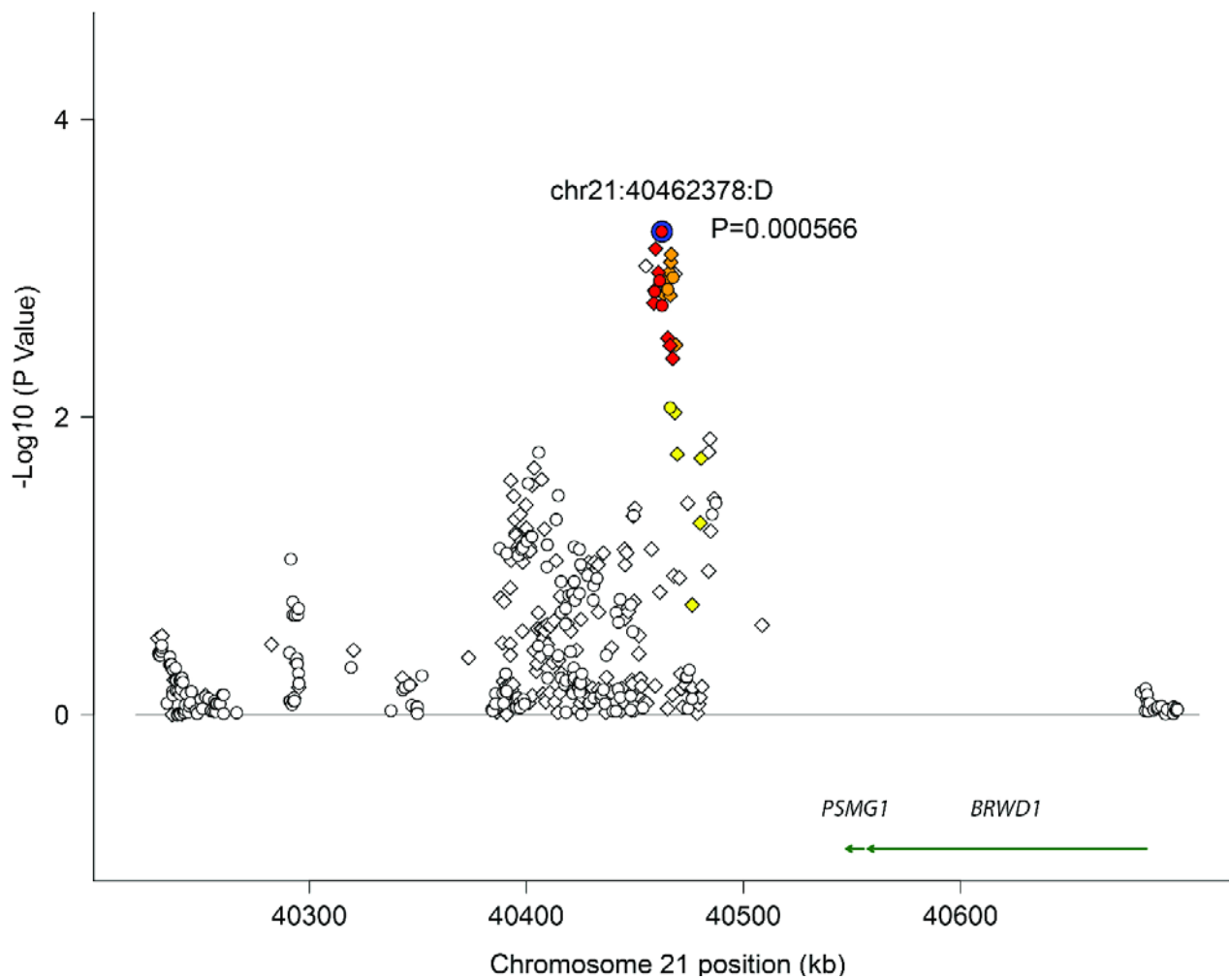


Figure S4: Genetic association results in chromosome 21q22 downstream of *PSMG1* in Takayasu's arteritis. Panel A shows the association results from the meta-analysis, while Panels B and C show the association results in the Turkish and the European-American cohorts, respectively. The red line represents the genome-wide level of significance ($P= 5 \times 10^{-8}$). Genotyped and imputed variants are shown in diamond-shaped symbols and circles, respectively. The colors represent r^2 values with the index SNP in each locus (white, $r^2 < 0.2$; yellow, $r^2 \geq 0.2-0.5$; orange, $r^2 \geq 0.5-0.8$; red, $r^2 \geq 0.8$).

A



B



C

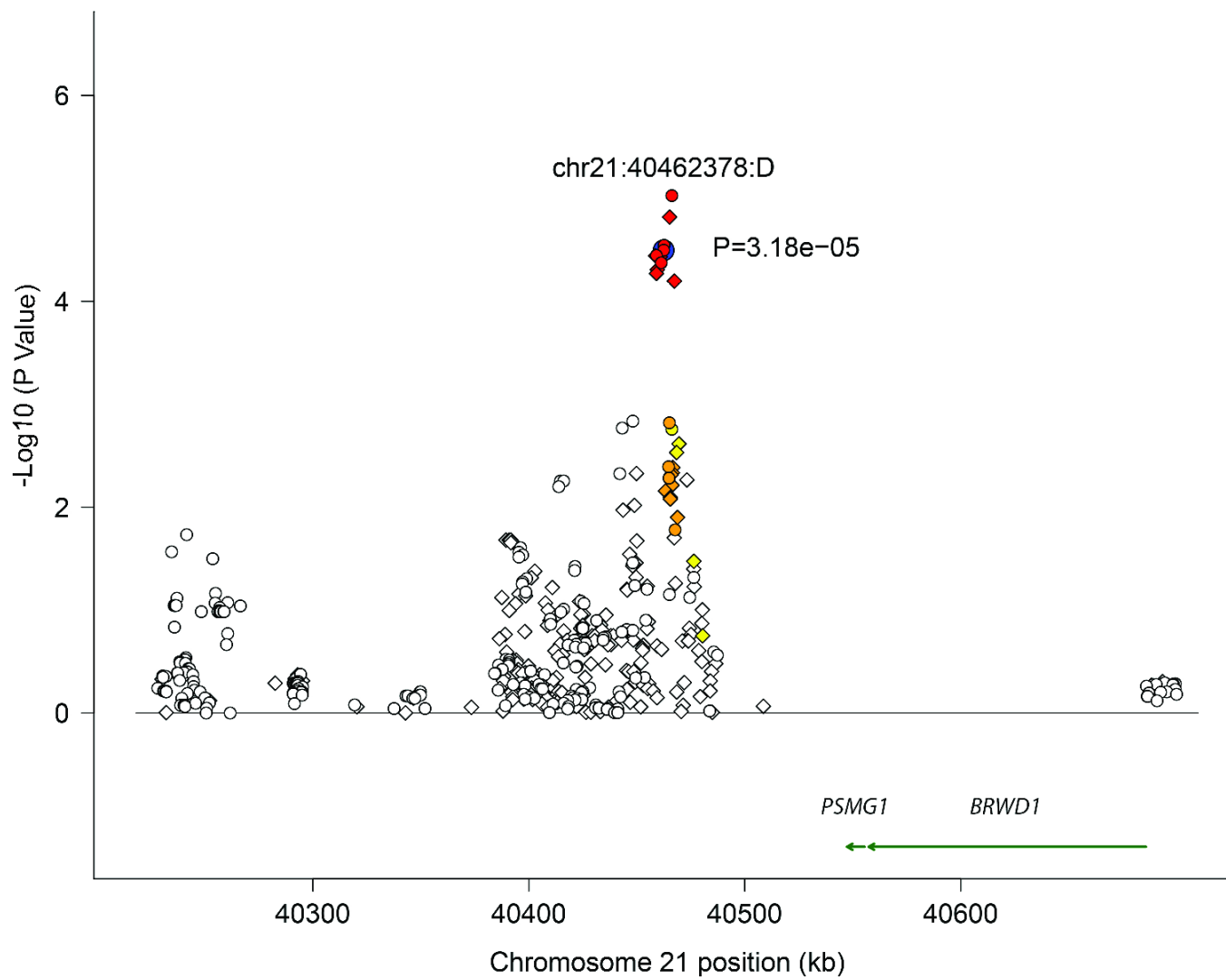
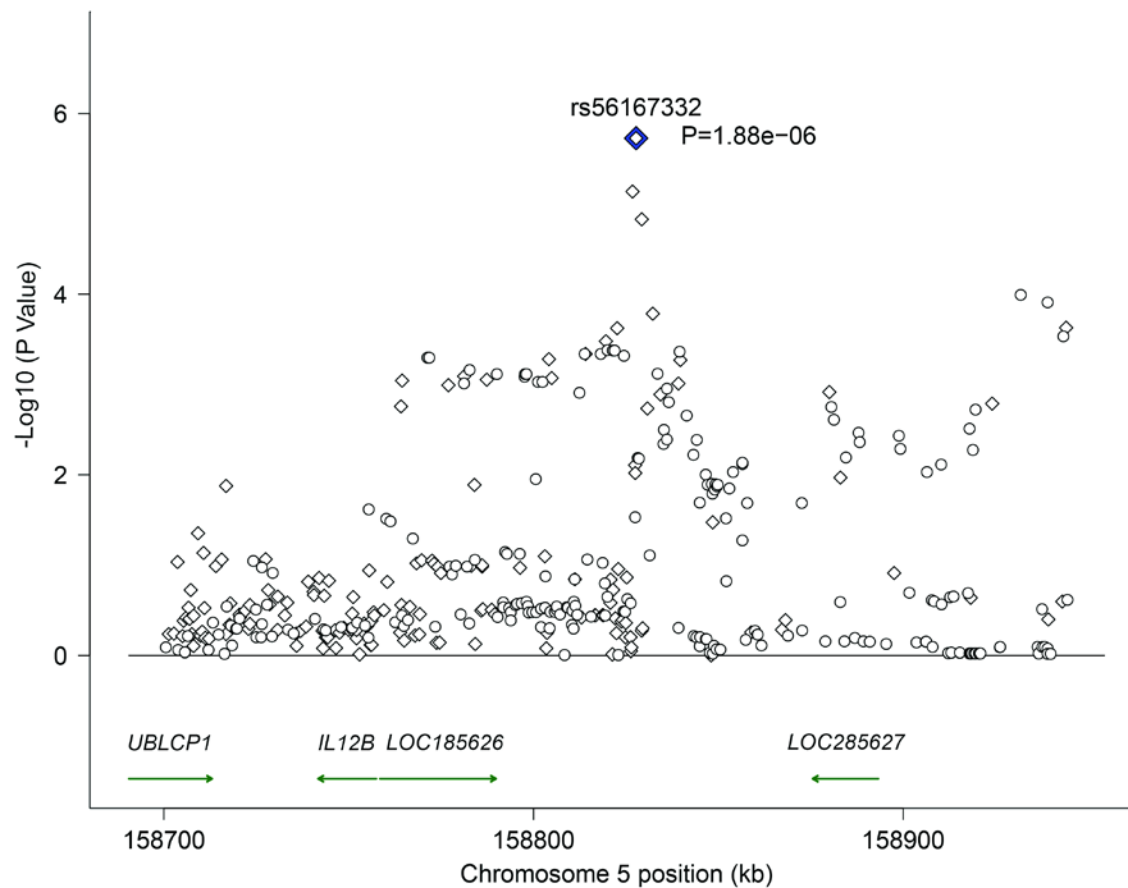
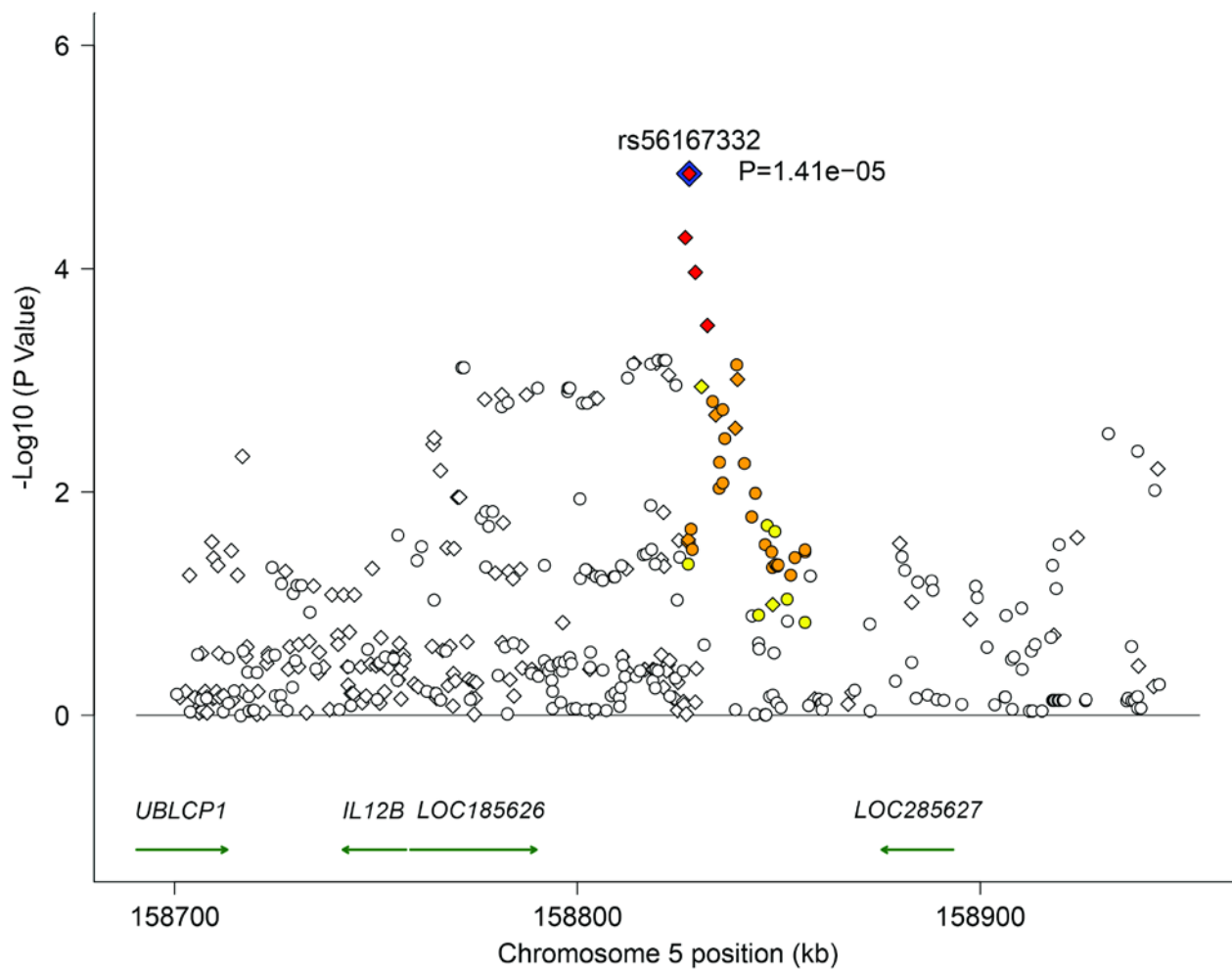


Figure S5: Genetic association results in the *IL12B* locus on chromosome 5 in Takayasu's arteritis. Panel A shows the association results from the meta-analysis, while Panels B and C show the association results in the Turkish and the European-American cohorts, respectively. Genotyped and imputed variants are shown in diamond-shaped symbols and circles, respectively. The colors represent r^2 values with the index SNP in each locus (white, $r^2 < 0.2$; yellow, $r^2 \geq 0.2-0.5$; orange, $r^2 \geq 0.5-0.8$; red, $r^2 \geq 0.8$).

A



B



C

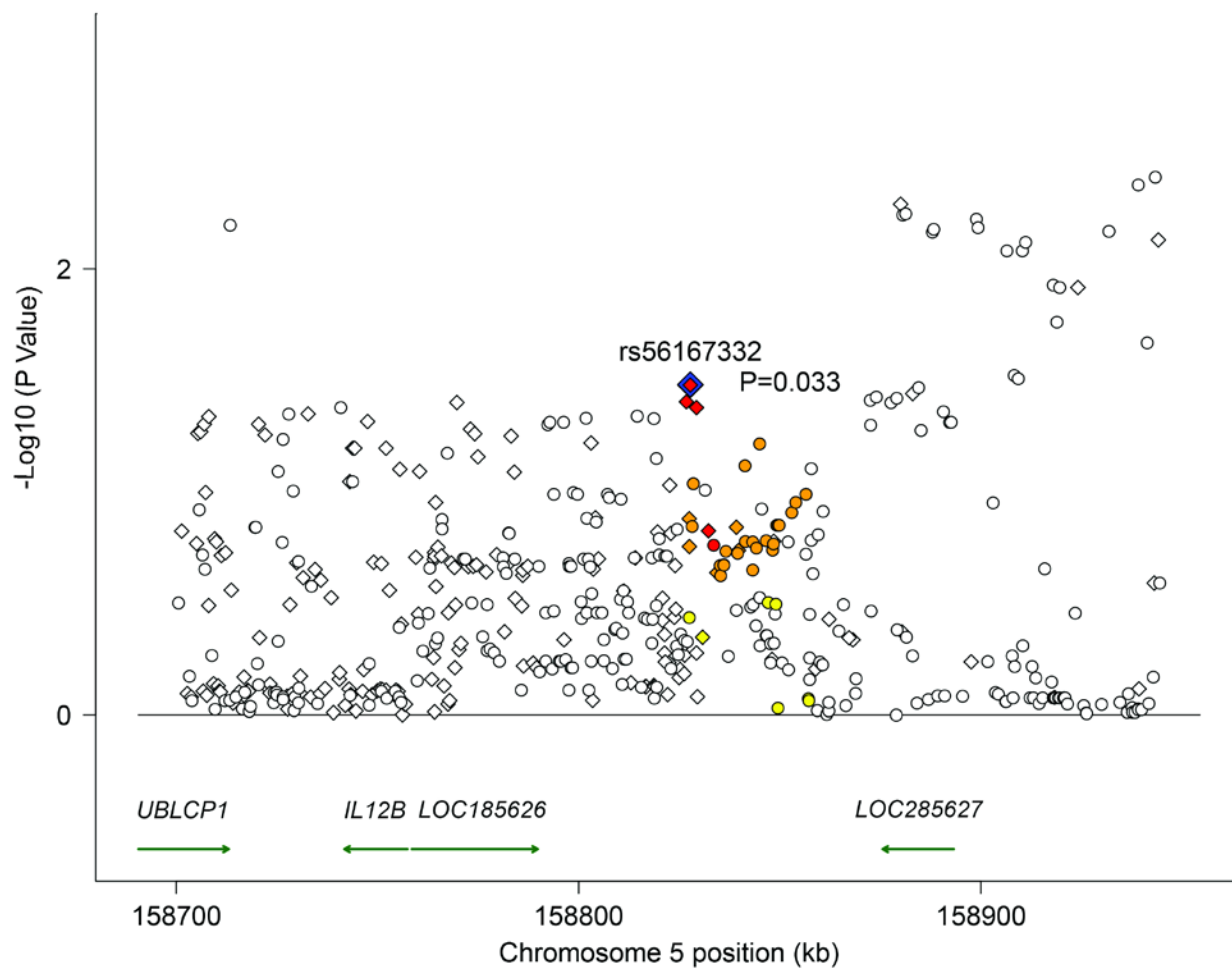


Table S1: Pair-wise correlation co-efficient values (r^2) between the genetic variants detected in the HLA class I and HLA class II regions, in the Turkish and the European-American cohorts.

Turkish

SNP	rs12524487	rs189754752	rs113452171
rs12524487	1	0.113	0.109
rs189754752	0.113	1	0.907
rs113452171	0.109	0.907	1

European-American

SNP	rs12524487	rs189754752	rs113452171
rs12524487	1	0.0334	0.0314
rs189754752	0.0334	1	1
rs113452171	0.0314	1	1

Table S2: Regression analysis between the three tag SNPs in *HLA-B/MICA* (rs12524487), and *HLA-DQB1/HLA-DRB1* (rs113452171 and rs189754752) confirms that these two genetic effects in the HLA region are independent genetic susceptibility loci for Takayasu's arteritis.

SNP	Covariates	Turkish		European-American		Meta-Analysis		
		OR (95% CI)	P	OR (95% CI)	P	OR	P	Q statistic P
rs12524487	rs113452171	2.21 (1.41 - 3.46)	0.00055	3.90 (2.52 - 6.05)	1.12E-09	2.96	1.26E-11	0.0752
rs12524487	rs189754752	2.09 (1.32 - 3.31)	1.60E-03	3.74 (2.41 - 5.79)	3.85E-09	2.83	1.19E-10	0.0734
rs189754752	rs12524487	1.94 (1.36 - 2.77)	2.40E-04	2.82 (1.18 - 6.75)	2.00E-02	2.05	1.81E-05	0.436
rs189754752	rs113452171	0.71 (0.23 - 2.20)	5.49E-01	N/A	N/A	N/A	N/A	N/A
rs113452171	rs12524487	1.90 (1.37 - 2.63)	0.00012	2.24 (0.94 - 5.36)	0.07	1.95	2.28E-05	0.729
rs113452171	rs189754752	3.27 (1.10 - 9.78)	3.37E-02	N/A	N/A	N/A	N/A	N/A

N/A, conditional analysis not possible due to high linkage disequilibrium.

Table S3: Genetic association results for variants in linkage disequilibrium ($r^2 > 0.7$) with rs12524487 in the *HLA-B/MICA* locus in the Turkish cohort.

SNP (Minor allele)	Position (HG19)	Gene	R^2	MAF _{Case}	MAF _{Control}	<i>P</i>	OR	95% CI	<i>P</i>	
									rs12524487 independent of SNP	<i>P</i> SNP independent of rs12524487
chr6:31340919:D (indel)	31340919	<i>HLA-B-MICA</i>	0.765	0.120	0.064	0.00021	1.980	(1.37 - 2.86)	0.000420	0.107
chr6:31347374:D(indel)	31347374	<i>HLA-B-MICA</i>	0.807	0.114	0.059	0.00011	2.037	(1.41 - 2.94)	0.000903	0.116
rs12524487 (T)	31354238	<i>HLA-B-MICA</i>	1.000	0.105	0.040	4.42E-07	2.786	(1.85 - 4.21)	N/A	N/A
chr6:31359160:D (Indel)	31359160	<i>HLA-B-MICA</i>	1.000	0.099	0.037	8.93E-07	2.837	(1.84 - 4.37)	N/A	N/A
chr6:31359428:D (Indel)	31359428	<i>HLA-B-MICA</i>	0.990	0.103	0.039	4.33E-07	2.846	(1.87 - 4.33)	N/A	N/A
rs141706050 (A)	31359449	<i>HLA-B-MICA</i>	1.000	0.100	0.038	8.06E-07	2.817	(1.84 - 4.32)	N/A	N/A

N/A, conditional analysis not possible due to high linkage disequilibrium.

Table S4: Genetic association results for variants in linkage disequilibrium ($r^2 > 0.7$) with rs12524487 in the *HLA-B/MICA* locus in the European-American cohort.

SNP (Minor allele)	Position (HG19)	Gene	R ²	MAF _{Case}	MAF _{Control}	P	OR	95% CI	P rs12524487 independent of SNP	P SNP independent of rs12524487
1kg_6_30334027	30226048	<i>TRIM26-HLA-L</i>	0.710	0.159	0.065	4.83E-06	2.717	(1.75 - 4.23)	8.91E-07	0.05197
rs3819294 (T)	31322486	<i>HLA-B</i>	0.751	0.176	0.071	9.15E-07	2.780	(1.82 - 4.24)	6.45E-06	0.0615
rs4999717 (T)	31324348	<i>HLA-B</i>	0.743	0.157	0.046	5.35E-09	3.844	(2.38 - 6.22)	1.88E-05	0.292
rs17881210 (T)	31324448	<i>HLA-B</i>	0.752	0.157	0.044	1.46E-09	4.052	(2.50 - 6.57)	2.21E-05	0.3318
rs145400941 (A)	31324891	<i>HLA-B</i>	0.788	0.175	0.062	6.15E-08	3.190	(2.06 - 4.95)	1.44E-05	0.09785
rs34437781 (T)	31324955	<i>HLA-B</i>	0.812	0.173	0.058	9.42E-09	3.423	(2.20 - 5.32)	5.83E-06	0.06903
rs34265426 (A)	31325684	<i>HLA-B-MICA</i>	0.781	0.171	0.064	2.17E-07	3.013	(1.95 - 4.65)	3.35E-06	0.04232
rs185381871 (T)	31325795	<i>HLA-B-MICA</i>	0.782	0.171	0.065	2.94E-07	2.973	(1.93 - 4.59)	3.40E-06	0.04
chr6:31326149:D (Indel)	31326149	<i>HLA-B-MICA</i>	0.728	0.183	0.071	2.78E-07	2.918	(1.91 - 4.46)	1.94E-06	0.05423
rs9405085 (G)	31326292	<i>HLA-B-MICA</i>	0.784	0.175	0.065	1.16E-07	3.051	(1.99 - 4.69)	3.18E-06	0.04448
rs9378249 (G)	31327701	<i>HLA-B-MICA</i>	0.806	0.147	0.036	2.71E-10	4.570	(2.74 - 7.61)	1.89E-06	0.09187
rs137955370 (T)	31328475	<i>HLA-B-MICA</i>	0.782	0.175	0.064	7.14E-08	3.110	(2.02 - 4.78)	2.98E-06	0.04708
rs9366782 (T)	31328545	<i>HLA-B-MICA</i>	0.782	0.175	0.064	7.14E-08	3.110	(2.02 - 4.78)	2.98E-06	0.04708
chr6:31340919:D (Indel)	31340919	<i>HLA-B-MICA</i>	0.914	0.211	0.064	1.05E-11	3.912	(2.58 - 5.93)	0.04131	0.4583
chr6:31347374:D (Indel)	31347374	<i>HLA-B-MICA</i>	0.920	0.217	0.070	2.30E-11	3.668	(2.46 - 5.48)	0.07358	0.5675
rs115960365 (T)	31349030	<i>HLA-B-MICA</i>	0.703	0.226	0.098	1.16E-07	2.700	(1.85 - 3.94)	0.001161	0.276
rs115310440 (A)	31349120	<i>HLA-B-MICA</i>	0.708	0.226	0.097	9.28E-08	2.723	(1.86 - 3.98)	0.001347	0.2946
rs116636316 (G)	31350463	<i>HLA-B-MICA</i>	0.711	0.224	0.096	1.12E-07	2.728	(1.86 - 4.00)	0.001661	0.3142
rs114717560 (C)	31351675	<i>HLA-B-MICA</i>	0.731	0.225	0.093	7.87E-08	2.841	(1.92 - 4.21)	0.003987	0.3245
chr6:31352722:I (Indel)	31352722	<i>HLA-B-MICA</i>	0.721	0.221	0.098	4.64E-07	2.609	(1.78 - 3.83)	0.003119	0.2324
rs115341260 (T)	31352880	<i>HLA-B-MICA</i>	0.728	0.224	0.097	1.87E-07	2.677	(1.83 - 3.92)	0.003205	0.2491
rs114542835 (G)	31353417	<i>HLA-B-MICA</i>	0.723	0.226	0.097	9.28E-08	2.723	(1.86 - 3.98)	0.002419	0.2333
rs12524487 (T)	31354238	<i>HLA-B-MICA</i>	1.000	0.217	0.067	4.05E-12	3.850	(2.57 - 5.76)	N/A	N/A
chr6:31359160:D (Indel)	31359160	<i>HLA-B-MICA</i>	0.909	0.226	0.076	2.15E-10	3.560	(2.36 - 5.37)	0.1461	0.88

chr6:31359428:D (Indel)	31359428	<i>HLA-B-MICA</i>	1.000	0.209	0.062	5.83E-12	3.965	(2.62 - 6.01)	N/A	N/A
rs141706050 (A)	31359449	<i>HLA-B-MICA</i>	1.000	0.209	0.062	5.83E-12	3.965	(2.62 - 6.01)	N/A	N/A
rs147293721 (A)	31366295	<i>HLA-B-MICA</i>	0.822	0.156	0.063	3.54E-06	2.760	(1.77 - 4.30)	3.32E-08	0.001118
rs3763288 (A)	31370367	<i>MICA</i>	0.790	0.148	0.058	4.66E-06	2.803	(1.78 - 4.43)	2.81E-08	0.004013
rs114202986 (C)	31375917	<i>MICA</i>	0.813	0.156	0.062	2.56E-06	2.803	(1.80 - 4.38)	3.54E-08	0.002061
rs9380254 (C)	31378335	<i>MICA</i>	0.783	0.136	0.057	5.09E-05	2.579	(1.61 - 4.14)	2.65E-08	0.002191
rs114910971 (T)	31380897	<i>MICA</i>	0.809	0.156	0.059	1.07E-06	2.924	(1.87 - 4.58)	3.58E-08	0.00264
rs116423065 (T)	31416990	<i>MICA-HCP5</i>	0.802	0.149	0.055	1.16E-06	3.013	(1.90 - 4.79)	6.20E-08	0.005319
rs3128984 (G)	31424528	<i>MICA-HCP5</i>	0.729	0.150	0.060	1.42E-05	2.746	(1.71 - 4.40)	1.14E-08	0.002209
rs115451618 (G)	31426399	<i>MICA-HCP5</i>	0.801	0.149	0.054	7.99E-07	3.068	(1.93 - 4.88)	6.08E-08	0.005804

N/A, conditional analysis not possible due to high linkage disequilibrium.

Table S5: Classical HLA allele association results in Takayasu's arteritis. Only alleles with a frequency of at least 1% were analyzed.

Allele	Turkish					European-American					Meta-Analysis		
	AF _{Case}	AF _{Control}	P	OR	CI95%	AF _{Case}	AF _{Control}	P	OR	CI95%	P	OR	Q Statistic P
<i>HLA-A*0101</i>	0.103	0.136	0.088	0.725	(0.50-1.05)	0.116	0.170	0.083	0.640	(0.39-1.06)	0.017	0.694	0.698
<i>HLA-A*1101</i>	0.087	0.093	0.755	0.937	(0.62-1.41)	0.043	0.071	0.187	0.588	(0.26-1.31)	0.381	0.849	0.309
<i>HLA-A*0201</i>	0.238	0.198	0.104	1.265	(0.95-1.68)	0.378	0.291	0.025	1.484	(1.05-2.10)	0.007	1.349	0.484
<i>HLA-A*0205</i>	0.009	0.024	0.057	0.360	(0.12-1.08)	0.012	0.011	0.864	1.143	(0.25-5.27)	0.166	0.533	0.229
<i>HLA-A*2301</i>	0.022	0.028	0.509	0.772	(0.36-1.67)	0.018	0.020	0.866	0.899	(0.26-3.07)	0.517	0.806	0.837
<i>HLA-A*2402</i>	0.155	0.156	0.968	0.993	(0.72-1.37)	0.073	0.093	0.414	0.770	(0.41-1.44)	0.682	0.942	0.481
<i>HLA-A*2902</i>	0.026	0.028	0.847	0.931	(0.45-1.92)	0.043	0.038	0.797	1.115	(0.49-2.55)	0.980	1.007	0.748
<i>HLA-A*3001</i>	0.068	0.027	0.000714	2.648	(1.48-4.75)	0.006	0.011	0.586	0.568	(0.07-4.47)	0.003	2.362	0.159
<i>HLA-A*0301</i>	0.090	0.131	0.031	0.654	(0.44-0.96)	0.189	0.164	0.419	1.193	(0.78-1.83)	0.297	0.858	0.042
<i>HLA-A*0302</i>	0.004	0.017	0.055	0.256	(0.06-1.15)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-A*3101</i>	0.017	0.018	0.921	0.956	(0.39-2.33)	0.018	0.042	0.150	0.429	(0.13-1.40)	0.358	0.716	0.289
<i>HLA-A*3201</i>	0.057	0.035	0.077	1.654	(0.94-2.90)	0.030	0.024	0.594	1.306	(0.49-3.50)	0.074	1.561	0.683
<i>HLA-A*6801</i>	0.063	0.053	0.475	1.199	(0.73-1.97)	0.030	0.033	0.861	0.918	(0.35-2.40)	0.580	1.133	0.628
<i>HLA-B*1302</i>	0.116	0.041	1.50E-05	3.100	(1.82-5.29)	0.063	0.020	0.002	3.382	(1.52-7.53)	3.25E-07	3.184	0.859
<i>HLA-B*1401</i>	N/A	N/A	N/A	N/A	N/A	0.013	0.020	0.553	0.642	(0.15-2.81)	N/A	N/A	N/A
<i>HLA-B*1402</i>	0.024	0.012	0.194	1.948	(0.70-5.42)	0.038	0.022	0.228	1.764	(0.69-4.49)	0.0818	1.845	0.888
<i>HLA-B*1501</i>	0.027	0.016	0.258	1.703	(0.67-4.33)	0.127	0.050	0.00021	2.781	(1.59-4.87)	0.00027	2.442	0.378
<i>HLA-B*1517</i>	0.012	0.014	0.778	0.840	(0.25-2.81)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-B*1801</i>	0.054	0.106	0.007	0.477	(0.28-0.82)	0.044	0.047	0.873	0.935	(0.41-2.12)	0.021	0.587	0.181
<i>HLA-B*2705</i>	0.015	0.034	0.092	0.435	(0.16-1.18)	0.025	0.028	0.869	0.913	(0.31-2.67)	0.188	0.613	0.320
<i>HLA-B*3501</i>	0.033	0.055	0.129	0.584	(0.29-1.18)	0.032	0.050	0.327	0.627	(0.24-1.61)	0.074	0.599	0.906
<i>HLA-B*3502</i>	0.024	0.028	0.688	0.838	(0.35-1.98)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-B*3503</i>	0.045	0.044	0.973	1.011	(0.53-1.95)	0.025	0.018	0.565	1.383	(0.46-4.19)	0.749	1.096	0.634
<i>HLA-B*3701</i>	0.009	0.016	0.377	0.558	(0.15-2.07)	0.019	0.012	0.440	1.661	(0.45-6.10)	0.944	0.967	0.247

<i>HLA-B*3801</i>	0.009	0.041	0.00593	0.213	(0.06-0.71)	0.038	0.006	0.0003	6.813	(2.05-22.6)	0.642	1.224	0.000
<i>HLA-B*4001</i>	0.033	0.021	0.288	1.563	(0.68-3.58)	0.044	0.067	0.285	0.647	(0.29-1.45)	0.978	0.992	0.135
<i>HLA-B*4002</i>	0.027	0.018	0.357	1.530	(0.62-3.81)	0.019	0.016	0.796	1.181	(0.34-4.16)	0.372	1.400	0.744
<i>HLA-B*4101</i>	0.036	0.021	0.190	1.710	(0.76-3.85)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-B*4402</i>	0.042	0.051	0.514	0.805	(0.42-1.55)	0.044	0.098	0.030	0.427	(0.19-0.94)	0.065	0.623	0.225
<i>HLA-B*4403</i>	0.033	0.027	0.588	1.243	(0.56-2.74)	0.070	0.059	0.598	1.199	(0.61-2.35)	0.453	1.217	0.946
<i>HLA-B*4901</i>	0.042	0.051	0.514	0.805	(0.42-1.55)	0.006	0.014	0.438	0.454	(0.06-3.52)	0.395	0.764	0.602
<i>HLA-B*5001</i>	0.033	0.035	0.836	0.924	(0.44-1.95)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-B*5101</i>	0.122	0.134	0.597	0.896	(0.60-1.35)	0.044	0.052	0.691	0.848	(0.38-1.92)	0.515	0.886	0.905
<i>HLA-B*5201</i>	0.116	0.034	1.04E-06	3.780	(2.15-6.66)	0.063	0.006	3.00E-08	11.660	(3.93-34.6)	8.98E-10	4.806	0.072
<i>HLA-B*5501</i>	0.018	0.018	0.983	1.011	(0.36-2.81)	0.006	0.016	0.345	0.389	(0.05-2.98)	0.697	0.834	0.411
<i>HLA-B*5601</i>	0.009	0.012	0.633	0.719	(0.18-2.80)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-B*5701</i>	0.024	0.025	0.931	0.962	(0.40-2.32)	0.025	0.036	0.508	0.701	(0.24-2.02)	0.625	0.845	0.652
<i>HLA-B*5801</i>	0.015	0.016	0.905	0.935	(0.31-2.81)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-B*0702</i>	0.036	0.037	0.915	0.961	(0.47-1.98)	0.120	0.169	0.123	0.670	(0.40-1.12)	0.189	0.756	0.425
<i>HLA-B*0801</i>	0.003	0.039	0.00095	0.074	(0.01-0.55)	0.063	0.134	0.013	0.438	(0.22-0.86)	0.001957	0.367	0.099
<i>HLA-Cw*0102</i>	0.031	0.045	0.202	0.679	(0.37-1.23)	0.026	0.040	0.319	0.622	(0.24-1.60)	0.109	0.662	0.877
<i>HLA-Cw*1202</i>	0.090	0.026	2.05E-07	3.737	(2.20-6.34)	0.051	0.006	6.20E-07	8.817	(3.17-24.6)	4.01E-10	4.476	0.144
<i>HLA-Cw*1203</i>	0.098	0.132	0.057	0.710	(0.50-1.01)	0.082	0.031	0.00097	2.750	(1.47-5.13)	0.941	0.988	0.000
<i>HLA-Cw*1402</i>	0.031	0.044	0.239	0.699	(0.38-1.27)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-Cw*1502</i>	0.061	0.061	0.957	0.987	(0.62-1.57)	0.015	0.027	0.330	0.554	(0.17-1.85)	0.693	0.917	0.380
<i>HLA-Cw*1505</i>	0.027	0.010	0.015	2.839	(1.18-6.82)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-Cw*1601</i>	0.025	0.021	0.587	1.224	(0.59-2.54)	0.036	0.048	0.437	0.727	(0.32-1.63)	0.907	0.968	0.349
<i>HLA-Cw*1602</i>	0.008	0.025	0.026	0.313	(0.11-0.92)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-Cw*1701</i>	0.021	0.018	0.691	1.172	(0.53-2.57)	0.005	0.012	0.389	0.418	(0.05-3.23)	0.944	1.027	0.357
<i>HLA-Cw*0202</i>	0.027	0.045	0.097	0.592	(0.32-1.11)	0.046	0.051	0.787	0.905	(0.44-1.87)	0.155	0.709	0.386
<i>HLA-Cw*0303</i>	0.027	0.027	0.967	1.015	(0.51-2.00)	0.082	0.044	0.030	1.911	(1.06-3.46)	0.102	1.453	0.169
<i>HLA-Cw*0304</i>	0.037	0.022	0.105	1.709	(0.89-3.29)	0.138	0.091	0.044	1.598	(1.01-2.53)	0.011	1.634	0.869
<i>HLA-Cw*0401</i>	0.176	0.174	0.934	1.012	(0.76-1.35)	0.107	0.104	0.897	1.033	(0.63-1.70)	0.893	1.017	0.944
<i>HLA-Cw*0501</i>	0.027	0.016	0.152	1.736	(0.81-3.73)	0.026	0.073	0.014	0.334	(0.13-0.84)	0.687	0.886	0.007
<i>HLA-Cw*0602</i>	0.162	0.114	0.012	1.504	(1.09-2.07)	0.107	0.081	0.228	1.365	(0.82-2.27)	0.00574	1.463	0.751

<i>HLA-Cw*0701</i>	0.068	0.129	0.00049	0.497	(0.33-0.74)	0.077	0.168	0.0012	0.411	(0.24-0.71)	3.74E-06	0.466	0.587
<i>HLA-Cw*0702</i>	0.057	0.059	0.868	0.961	(0.60-1.54)	0.117	0.154	0.192	0.733	(0.46-1.17)	0.297	0.838	0.427
<i>HLA-Cw*0704</i>	N/A	N/A	N/A	N/A	N/A	0.010	0.017	0.478	0.590	(0.14-2.58)	N/A	N/A	N/A
<i>HLA-Cw*0802</i>	0.014	0.012	0.823	1.117	(0.42-2.95)	0.041	0.040	0.979	1.011	(0.47-2.19)	0.872	1.051	0.875
<i>HLA-DQA1*0101</i>	0.164	0.136	0.152	1.244	(0.92-1.68)	0.131	0.137	0.844	0.956	(0.61-1.50)	0.279	1.148	0.339
<i>HLA-DQA1*0102</i>	0.185	0.131	0.006	1.507	(1.12-2.02)	0.182	0.203	0.488	0.871	(0.59-1.29)	0.075	1.238	0.028
<i>HLA-DQA1*0103</i>	0.105	0.101	0.841	1.037	(0.73-1.48)	0.101	0.074	0.190	1.413	(0.84-2.37)	0.367	1.144	0.334
<i>HLA-DQA1*0201</i>	0.149	0.082	7.01E-05	1.969	(1.40-2.76)	0.136	0.136	0.976	1.007	(0.65-1.57)	0.002	1.539	0.019
<i>HLA-DQA1*0301</i>	0.118	0.152	0.067	0.742	(0.54-1.02)	0.273	0.177	0.0017	1.746	(1.23-2.48)	0.458	1.094	0.000
<i>HLA-DQA1*0401</i>	0.017	0.024	0.370	0.699	(0.32-1.54)	0.025	0.034	0.510	0.728	(0.28-1.88)	0.269	0.710	0.949
<i>HLA-DQB1*0201</i>	0.090	0.108	0.315	0.821	(0.56-1.21)	0.064	0.151	0.0038	0.385	(0.20-0.75)	0.023	0.680	0.055
<i>HLA-DQB1*0202</i>	0.049	0.031	0.097	1.617	(0.91-2.87)	0.019	0.019	0.994	0.995	(0.29-3.46)	0.136	1.486	0.488
<i>HLA-DQB1*0301</i>	0.223	0.315	0.00044	0.626	(0.48-0.81)	0.199	0.187	0.736	1.077	(0.70-1.66)	0.005	0.725	0.035
<i>HLA-DQB1*0302</i>	0.114	0.105	0.637	1.091	(0.76-1.57)	0.250	0.109	1.61E-06	2.733	(1.79-4.17)	0.001	1.607	0.001
<i>HLA-DQB1*0303</i>	0.030	0.028	0.792	1.095	(0.56-2.15)	0.019	0.045	0.140	0.419	(0.13-1.38)	0.633	0.867	0.169
<i>HLA-DQB1*0402</i>	0.017	0.030	0.161	0.567	(0.25-1.27)	0.019	0.035	0.308	0.540	(0.16-1.80)	0.087	0.558	0.948
<i>HLA-DQB1*0501</i>	0.084	0.077	0.647	1.102	(0.73-1.67)	0.115	0.135	0.501	0.834	(0.49-1.42)	0.957	0.991	0.417
<i>HLA-DQB1*0502</i>	0.137	0.059	1.32E-06	2.557	(1.73-3.78)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-DQB1*0503</i>	0.062	0.063	0.934	0.980	(0.61-1.57)	0.026	0.017	0.455	1.530	(0.50-4.71)	0.835	1.047	0.474
<i>HLA-DQB1*0601</i>	0.067	0.039	0.030	1.734	(1.05-2.87)	0.045	0.010	0.00099	4.815	(1.72-13.5)	0.0012	2.113	0.081
<i>HLA-DQB1*0602</i>	0.043	0.037	0.603	1.164	(0.66-2.07)	0.141	0.164	0.469	0.835	(0.51-1.36)	0.829	0.960	0.388
<i>HLA-DQB1*0603</i>	0.052	0.065	0.340	0.786	(0.48-1.29)	0.064	0.065	0.959	0.982	(0.49-1.97)	0.420	0.847	0.611
<i>HLA-DQB1*0604</i>	0.026	0.030	0.666	0.857	(0.43-1.72)	0.026	0.042	0.329	0.596	(0.21-1.70)	0.371	0.767	0.572
<i>HLA-DQB1*0609</i>	N/A	N/A	N/A	N/A	N/A	0.006	0.011	0.611	0.587	(0.07-4.67)	N/A	N/A	N/A
<i>HLA-DRB1*0101</i>	0.034	0.048	0.366	0.710	(0.34-1.50)	0.065	0.078	0.612	0.8199	(0.38-1.77)	0.318	0.761	0.793
<i>HLA-DRB1*0102</i>	0.022	0.018	0.718	1.208	(0.43-3.37)	0.032	0.010	0.048	3.281	(0.95-11.4)	0.142	1.809	0.224
<i>HLA-DRB1*0301</i>	0.094	0.134	0.088	0.668	(0.42-1.06)	0.081	0.160	0.023	0.4623	(0.23-0.91)	0.008	0.594	0.380
<i>HLA-DRB1*0401</i>	N/A	N/A	N/A	N/A	N/A	0.048	0.062	0.562	0.7722	(0.32-1.86)	N/A	N/A	N/A
<i>HLA-DRB1*0402</i>	0.013	0.014	0.892	0.916	(0.26-3.27)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-DRB1*0403</i>	N/A	N/A	N/A	N/A	N/A	0.024	0.016	0.507	1.544	(0.42-5.62)	N/A	N/A	N/A
<i>HLA-DRB1*0404</i>	0.028	0.025	0.791	1.129	(0.46-2.76)	0.024	0.024	0.988	0.9903	(0.29-3.43)	0.836	1.080	0.867

<i>HLA-DRB1*0405</i>	0.025	0.002	0.004	11.260	(1.40-90.5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-DRB1*0701</i>	0.194	0.123	0.007	1.718	(1.15-2.56)	0.186	0.154	0.373	1.254	(0.76-2.06)	0.008	1.520	0.333
<i>HLA-DRB1*0801</i>	N/A	N/A	N/A	N/A	N/A	0.016	0.026	0.517	0.6175	(0.14-2.70)	N/A	N/A	N/A
<i>HLA-DRB1*0803</i>	0.006	0.014	0.325	0.455	(0.09-2.27)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-DRB1*0901</i>	N/A	N/A	N/A	N/A	N/A	0.016	0.010	0.550	1.614	(0.33-7.86)	N/A	N/A	N/A
<i>HLA-DRB1*1001</i>	0.038	0.023	0.230	1.675	(0.71-3.93)	0.024	0.010	0.186	2.44	(0.62-9.57)	0.092	1.861	0.647
<i>HLA-DRB1*1101</i>	0.025	0.057	0.034	0.426	(0.19-0.96)	0.024	0.023	0.935	1.054	(0.30-3.67)	0.091	0.557	0.232
<i>HLA-DRB1*1104</i>	0.041	0.059	0.255	0.674	(0.34-1.33)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-DRB1*1201</i>	0.009	0.016	0.435	0.585	(0.15-2.28)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>HLA-DRB1*1301</i>	0.047	0.080	0.073	0.569	(0.31-1.06)	0.097	0.072	0.333	1.384	0.71-2.68)	0.528	0.864	0.055
<i>HLA-DRB1*1302</i>	0.050	0.089	0.042	0.541	(0.30-0.99)	0.032	0.062	0.193	0.5062	(0.18-1.44)	0.018	0.532	0.913
<i>HLA-DRB1*1303</i>	0.006	0.023	0.072	0.270	(0.06-1.24)	0.016	0.016	0.979	1.021	(0.22-4.66)	0.243	0.527	0.226
<i>HLA-DRB1*1401</i>	0.059	0.077	0.339	0.754	(0.42-1.35)	0.016	0.017	0.930	0.9344	(0.21-4.23)	0.357	0.775	0.795
<i>HLA-DRB1*1501</i>	0.072	0.045	0.120	1.626	(0.88-3.02)	0.161	0.185	0.522	0.8453	(0.50-1.42)	0.618	1.106	0.111
<i>HLA-DRB1*1502</i>	0.081	0.036	0.007	2.344	(1.24-4.45)	0.056	0.009	8.55E-05	6.88	(2.27-20.8)	0.0000735	3.069	0.099
<i>HLA-DRB1*1601</i>	0.106	0.073	0.105	1.516	(0.91-2.51)	0.032	0.013	0.112	2.544	(0.77-8.39)	0.037	1.640	0.434

AF, allele frequency; OR, odds ratio, CI, confidence interval

Table S6: Conditional regression analysis between rs12524487 in the *HLA-B/MICA* locus and the classical HLA alleles which are associated with Takayasu's arteritis in this study.

Marker	Covariate	Turkish		European-American		Meta-Analysis		
		OR (CI95%)	P	OR (CI95%)	P	OR	P_{meta}	Q statistic P
rs12524487	<i>HLA-B*5201</i>	2.262 (0.96 - 5.32)	0.061	3.135 (1.75 - 5.61)	0.00012	2.93	2.09E-07	0.501
<i>HLA-B*5201</i>	rs12524487	1.798 (0.70 - 4.63)	0.224	4.873 (1.48 - 16.0)	0.0091	2.65	0.01	0.199
rs12524487	<i>HLA-Cw*1202</i>	1.570 (0.74 - 3.31)	0.236	3.158 (1.99 - 5.01)	1.01E-06	2.60	1.73E-06	0.118
<i>HLA-Cw*1202</i>	rs12524487	2.481 (1.09 - 5.66)	0.031	4.450 (1.50 - 13.2)	0.0072	3.07	0.00083	0.402

Table S7: Genetic association results for variants in linkage disequilibrium ($r^2>0.7$) with chr21:40462378:D in the chromosome 21q22 locus.

SNP (Minor allele)	Position (HG19)	Turkish					European-American					Meta-Analysis		Q statistic P
		MAF _{Case}	MAF _{Control}	OR	95% CI	P	MAF _{Case}	MAF _{Control}	OR	95% CI	P	OR	P _{meta}	
rs28756733 (G)	40458722	0.298	0.376	0.707	(0.57-0.88)	0.001713	0.189	0.332	0.468	(0.32-0.68)	3.61E-05	0.635	1.92E-06	0.058
rs13048321 (T)	40459092	0.298	0.377	0.703	(0.57-0.87)	0.001433	0.191	0.335	0.468	(0.32-0.68)	3.59E-05	0.633	1.53E-06	0.061
rs13048533 (A)	40459094	0.297	0.375	0.702	(0.57-0.87)	0.00141	0.193	0.334	0.479	(0.33-0.68)	5.37E-05	0.635	1.81E-06	0.076
rs35819975 (C)	40459532	0.294	0.378	0.688	(0.55-0.86)	0.000742	0.193	0.335	0.477	(0.33-0.69)	4.93E-05	0.624	7.75E-07	0.090
rs2094871 (A)	40460859	0.295	0.376	0.696	(0.56-0.87)	0.001068	0.193	0.337	0.472	(0.33-0.68)	3.70E-05	0.628	1.03E-06	0.072
rs9982724 (A)	40461378	0.297	0.377	0.699	(0.56-0.87)	0.001211	0.193	0.336	0.474	(0.33-0.68)	4.24E-05	0.631	1.30E-06	0.073
chr21:40462378:D (indel)	40462378	0.296	0.382	0.680	(0.55-0.85)	0.000566	0.192	0.339	0.465	(0.32-0.67)	3.18E-05	0.616	4.39E-07	0.081
chr21:40462613:l (indel)	40462613	0.298	0.375	0.707	(0.57-0.88)	0.001781	0.191	0.337	0.464	(0.32-0.67)	2.85E-05	0.633	1.74E-06	0.053
rs2242944 (A)	40465178	0.316	0.390	0.723	(0.58-0.90)	0.002949	0.203	0.356	0.461	(0.32-0.66)	1.52E-05	0.642	2.27E-06	0.034
rs2836880 (C)	40466239	0.315	0.388	0.725	(0.59-0.90)	0.003297	0.203	0.360	0.453	(0.32-0.65)	9.38E-06	0.640	1.98E-06	0.027
rs2242945 (G)	40467423	0.338	0.410	0.734	(0.59-0.91)	0.004044	0.226	0.369	0.500	(0.65-0.71)	6.37E-05	0.661	6.46E-06	0.063

Table S8: Genetic association results for variants in linkage disequilibrium ($r^2 > 0.7$) with rs56167332 in the *IL12B* locus on chromosome 5 in the Turkish cohort.

SNP (Minor allele)	Position (HG19)	R2	MAF _{Cases}	MAF _{Controls}	<i>P</i>	OR	95% CI	<i>P</i> rs56167332 independent of SNP	<i>P</i> SNP independent of rs56167332
rs6871626 (A)	158826792	0.982	0.434	0.333	5.27E-05	1.536	1.25-1.89	NA	NA
rs56167332 (A)	158827769	1.000	0.441	0.332	1.41E-05	1.585	1.29-1.95	NA	NA
rs755374 (T)	158829294	0.960	0.425	0.328	0.00011	1.511	1.23-1.86	0.0141	0.0903
rs4921492 (A)	158832277	0.851	0.436	0.346	0.00032	1.463	1.19-1.80	0.0192	0.409
rs12374547 (A)	158833535	0.778	0.426	0.345	0.00155	1.411	1.14-1.75	0.0139	0.465
rs60689680 (T)	158834367	0.710	0.426	0.349	0.00204	1.387	1.13-1.71	0.0028	0.359
rs4921493 (C)	158836107	0.716	0.426	0.346	0.00183	1.399	1.13-1.73	0.0035	0.386

Table S9: Results of the meta-analysis for the three variants in the *IL12B* locus which are associated with Takayasu's arteritis in both the Turkish and the European-American cohorts.

SNP (Minor allele)	Position (HG19)	<i>P</i>	OR	Q statistic <i>P</i>
rs6871626 (A)	158826792	7.31E-06	1.479	0.533
rs56167332 (A)	158827769	1.88E-06	1.515	0.460
rs755374 (T)	158829294	1.48E-05	1.461	0.583