

**A six SNP haplotype of *ADAM33* is associated with Asthma in a population of Cartagena, Colombia.**

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**Supplemental Results**

**Table S1.** Allelic and genotypic frequencies and HWE *p*-values for the six *ADAM33* polymorphisms in the asthmatic and control subjects from Cartagena, Colombia

SNP	Allele/ Genotype	Cases (%) N = 429	Controls (%) N = 401	HWE <i>P</i> value
rs528557 (S2)	C	63.3	61.6	0.83
	CC	171 (40.2)	152 (38.2)	
	CG	196 (46.1)	186 (46.7)	
	GG	58 (13.6)	60 (15.1)	
rs574174 (ST+7)	C	82.6	83.5	0.20
	CC	296 (69.2)	275 (68.8)	
	CT	115 (26.9)	118 (29.5)	
	TT	17 (4.0)	7 (1.8)	
rs2280091 (T1)	A	91.4	89.5	0.06
	AA	358 (83.6)	324 (81.0)	
	AG	66 (15.4)	68 (17.0)	
	GG	4 (0.9)	8 (2.0)	
rs2280090 (T2)	A	9.6	9.4	0.37
	AA	6 (1.4)	5 (1.2)	
	AG	70 (16.3)	65 (16.2)	
	GG	353 (82.3)	331 (82.5)	
rs543749 (V_1)	G	79.4	78.6	0.45
	GG	269 (62.7)	250 (62.3)	
	GT	143 (33.3)	130 (32.4)	
	TT	17 (4.0)	21 (5.2)	
rs2787094 (V4)	C	31.1	31.4	0.90
	CC	36 (9.8)	38 (9.6)	
	CG	156 (42.5)	173 (43.6)	
	GG	175 (47.7)	186 (46.9)	

**Table S2.** Family based association tests of *ADAM33* polymorphisms and asthma, high tIgE levels (90<sup>th</sup> percentile) and IgE levels against *B. tropicalis* and *D. pteronyssinus* in a sample from Cartagena, Colombia.

Allele/ Genotype		No. of informative families	IgE against <i>B.tropicalis</i>		IgE against <i>D. pteronyssinus</i>	
			Z score	FBAT P-value	Z score	FBAT P-value
rs528557 (S2)	C	70	0.348	0.728	0.000	1.00
	G	70	-0.348	0.728	0.000	1.00
	CC	60	-0.044	0.964	-0.135	0.892
	CG	70	0.483	0.628	0.478	0.632
	GG	32	-0.765	0.444	-0.583	0.560
rs574174 (ST+7)	C	39	-0.101	0.919	-0.640	0.522
	T	39	0.101	0.919	0.640	0.522
	CC	37	0.723	0.469	0.421	0.673
	CT	39	-1.510	0.131	-1.441	0.149
	TT	9	2.188	0.028	2.414	0.015
rs2280091 (T1)	A	33	0.221	0.825	0.267	0.789
	G	33	-0.221	0.825	-0.267	0.789
	AA	33	0.787	0.431	0.976	0.329
	AG	33	-1.305	0.191	-1.567	0.117
	GG	5	1.567	0.117	1.807	0.070
rs2280090 (T2)	A	37	0.000	1.000	-0.126	0.899
	G	37	0.000	1.000	0.126	0.899
	AA	6	1.286	0.198	2.065	0.038
	AG	37	-0.988	0.323	-1.808	0.070
	GG	36	0.515	0.606	1.103	0.270
rs543749 (V_1)	G	55	0.884	0.376	0.663	0.507
	T	55	-0.884	0.376	-0.663	0.507
	GG	51	0.943	0.345	0.796	0.426
	GT	55	-0.784	0.432	-0.674	0.500
	TT	17	-0.200	0.841	-0.135	0.892
rs2787094 (V4)	C	66	1.739	0.082	0.749	0.453
	G	66	-1.739	0.082	-0.749	0.453
	CC	26	2.089	0.036	1.746	0.080
	CG	66	-0.341	0.733	0.000	1.000
	GG	60	-0.887	0.375	-1.079	0.280

**Table S3.** Haplotypes > 3% defined by the six analyzed single nucleotide polymorphisms in the *ADAM33* gene in the total sample (N = 1178) from Cartagena, Colombia.

SNP/ Position NT 011387.8	rs528557 (S2, C/G)	rs574174 (ST+7, C/T)	rs2280091 (T1,A/G)	rs2280090 (T2, A/G)	rs543749 (V_1, G/T)	rs2787094 (V4, C/G)	Haplotype frequencies
	3599742	3598694	3598234	3598205	3597679	3597161	
H1	C	C	A	G	G	G	0.29
H2	C	C	A	G	G	C	0.19
H3	G	T	A	G	T	G	0.10
H4	G	C	A	G	G	G	0.08
H5	G	C	G	G	G	G	0.056
H6	C	C	A	A	G	G	0.043
H7	G	C	A	G	G	C	0.043
H8	C	C	A	G	T	G	0.035
MAF Colombians	0.38	0.17	0.09	0.09	0.20	0.31	

**Table S4.** Comparisons of the allelic distribution of *ADAM33* polymorphisms in controls from Cartagena and other populations

Population	SNP/Allele					
	rs528557 (S2)/ C	rs574174 (ST+7)/C	rs2280091 (T1)/A	rs2280090 (T2)/A	rs543749 (V_1)/G	rs2787094 (V4)/C
Cartagena controls (N=401)	0.616	0.835	0.895	0.094	0.786	0.314
US (N=270) [1]	0.247*	0.88	0.93	0.074	0.83	0.80*
UK(N=270) [1]	0.271*	0.88	0.87	0.105	0.87	0.76*
British (N=7703) [2]	0.728	0.81	NA	NA	NA	NA
Mexican (N=186) [3]	NA <sup>&amp;</sup>	NA	0.918	0.082	0.86	0.828*
Puerto Rican (N=183) [3]	NA	NA	0.872	0.13	0.84	0.758*
Dutch (N =124) [4]	0.91*	0.81	0.87	0.14	0.87	0.77*
African american (N = 256) [4]	0.66	0.76	0.85	0.17	0.70	0.60*
US Caucasian (N = 225) [4]	0.30*	0.81	0.85	0.15	0.86	0.77*
US Hispanic ( N= 126) [4]	0.20*	0.91	0.92	0.08	0.89	0.85*
CAMP White (N =474) [5]	0.253*	NA	0.86	0.138	0.90	0.82*
CAMP African American (N =474) [5]	0.669	NA	0.83	0.148	0.77	0.69*
CAMP Hispanic (N =474) [5]	0.302*	NA	0.88	0.12	0.88	0.78*
Japanese (N =95) [6]	0.295*	NA	0.85	0.17	NA	NA
Koreans (N = 151) [7]	NA	NA	0.92	NA	0.89	0.66*
Germans (N=499) [8]	0.294*	0.78	0.84	0.152	0.86	0.778*
Australian (N = 1085) [9]	NA	0.81	NA	NA	0.86	0.77*

\* Allele frequencies that are significantly different compared to those in controls from the present study ( $P < 0.05$ ). <sup>&</sup>NA: not available.

## Supplementary References

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