

Supplementary Table 1. HLA-A allele frequency from Mexico: Tlalpan, Chihuahua, and Xalapa

Allele	MM		Tlalpan		Chihuahua		Xalapa	
	(n= 502)		(n=330)		(n=88)		(n=84)	
	n	AF	n	AF	n	AF	n	AF
A*01:01	59	5.88	40	6.06	16	9.09	3	1.79
A*02:01	265	26.39	171	25.91	48	27.27	46	27.38
A*02:02	20	1.99	16	2.42	1	0.57	3	1.79
A*03:01	48	4.78	29	4.39	10	5.68	9	5.36
A*11:01	27	2.69	18	2.73	6	3.41	3	1.79
A*11:04	7	0.70	6	0.91	1	0.57	0	0.00
A*23:01	30	2.99	18	2.73	6	3.41	6	3.57
A*24:02	165	16.43	113	17.12	28	15.91	24	14.29
A*25:01	8	0.80	6	0.91	2	1.14	0	0.00
A*26:01	33	3.29	19	2.88	9	5.11	5	2.98
A*29:01	29	2.89	18	2.73	8	4.55	3	1.79
A*30:01	34	3.39	26	3.94	4	2.27	4	2.38
A*31:01	65	6.47	34	5.15	15	8.52	16	9.52
A*31:03	1	0.10	1	0.15	0	0.00	0	0.00
A*32:01	17	1.69	9	1.36	4	2.27	4	2.38
A*33:01	19	1.89	13	1.97	3	1.70	3	1.79
A*34:04	3	0.30	3	0.45	0	0.00	0	0.00
A*36	18	1.79	10	1.52	4	2.27	4	2.38
A*66:01	3	0.30	2	0.30	0	0.00	1	0.60
A*68:01	129	12.85	91	13.79	8	4.55	30	17.86
A*68:02	4	0.40	2	0.30	2	1.14	0	0.00
A*68:03	10	1.00	9	1.36	0	0.00	1	0.60
A*68:05	2	0.20	1	0.15	0	0.00	1	0.60
A*69:01	1	0.10	1	0.15	0	0.00	0	0.00
A*74:01	5	0.50	2	0.30	1	0.57	2	1.19

A*80:01 2 0.20 2 0.30 0 0.00 0 0.00

AF: Allele Frequency. Only alleles with. **n**: Refers to the number of the alleles

Supplementary Table 2. *HLA-B* allele frequency from Mexico: Tlalpan, Chihuahua, and Xalapa

Allele	MM		Tlalpan		Chihuahua		Xalapa	
	(n= 502)		(n=330)		(n=88)		(n=84)	
	n	AF	n	AF	n	AF	n	AF
B*07:02	47	4.68	23	3.48	16	9.09	8	4.76
B*07:05	1	0.10	1	0.15	0	0.00	0	0.00
B*08:01	30	2.99	20	3.03	9	5.11	1	0.60
B*08:04	1	0.10	0	0.00	1	0.57	0	0.00
B*13:01	12	1.20	9	1.36	2	1.14	1	0.60
B*13:02	1	0.10	1	0.15	0	0.00	0	0.00
B*14:01	24	2.39	12	1.82	9	5.11	3	1.79
B*14:02	25	2.49	22	3.33	3	1.70	0	0.00
B*15:01	54	5.38	36	5.45	7	3.98	11	6.55
B*15:02	10	1.00	10	1.52	0	0.00	0	0.00
B*15:03	8	0.80	4	0.61	1	0.57	3	1.79
B*15:05	4	0.40	4	0.61	0	0.00	0	0.00
B*15:09	1	0.10	0	0.00	1	0.57	0	0.00
B*15:17	1	0.10	0	0.00	1	0.57	0	0.00
B*15:30	1	0.10	0	0.00	0	0.00	1	0.60
B*18:01	25	2.49	15	2.27	7	3.98	3	1.79
B*18:07	2	0.20	2	0.30	0	0.00	0	0.00
B*27	9	0.90	6	0.91	2	1.14	1	0.60
B*35:01	161	16.04	109	16.52	19	10.80	33	19.64
B*35:02	43	4.28	28	4.24	5	2.84	10	5.95
B*35:03	1	0.10	0	0.00	0	0.00	1	0.60
B*35:05	1	0.10	1	0.15	0	0.00	0	0.00

B*35:14	3	0.30	2	0.30	1	0.57	0	0.00
B*37:01	7	0.70	6	0.91	0	0.00	1	0.60
B*38:01	11	1.10	3	0.45	6	3.41	2	1.19
B*39:01	131	13.05	86	13.03	20	11.36	25	14.88
B*39:02	23	2.29	21	3.18	1	0.57	1	0.60
B*39:06	16	1.59	14	2.12	1	0.57	1	0.60
B*40:01	22	2.19	15	2.27	5	2.84	2	1.19
B*40:02	65	6.47	41	6.21	7	3.98	17	10.12
B*40:03	1	0.10	0	0.00	0	0.00	1	0.60
B*40:05	5	0.50	1	0.15	1	0.57	3	1.79
B*41:01	4	0.40	4	0.61	0	0.00	0	0.00
B*42:01	2	0.20	1	0.15	1	0.57	0	0.00
B*42:04	1	0.10	1	0.15	0	0.00	0	0.00
B*44:02	62	6.18	39	5.91	14	7.95	9	5.36
B*45:01	7	0.70	5	0.76	2	1.14	0	0.00
B*45:02	3	0.30	3	0.45	0	0.00	0	0.00
B*46:01	1	0.10	1	0.15	0	0.00	0	0.00
B*48:01	32	3.19	26	3.94	1	0.57	5	2.98
B*49:01	13	1.29	9	1.36	1	0.57	3	1.79
B*49:02	3	0.30	3	0.45	0	0.00	0	0.00
B*50:01	11	1.10	8	1.21	3	1.70	0	0.00
B*51:01	65	6.47	36	5.45	21	11.93	8	4.76
B*51:02	1	0.10	0	0.00	0	0.00	1	0.60
B*52:01	16	1.59	8	1.21	4	2.27	4	2.38
B*52:02	2	0.20	1	0.15	1	0.57	0	0.00
B*53:01	11	1.10	7	1.06	0	0.00	4	2.38
B*54:01	1	0.10	1	0.15	0	0.00	0	0.00
B*55:01	6	0.60	6	0.91	0	0.00	0	0.00
B*55:02	1	0.10	0	0.00	1	0.57	0	0.00
B*56:01	1	0.10	1	0.15	0	0.00	0	0.00

B*57:01	6	0.60	5	0.76	0	0.00	1	0.60
B*57:02	2	0.20	2	0.30	0	0.00	0	0.00
B*58:01	6	0.60	1	0.15	2	1.14	3	1.79
B*78:01	1	0.10	0	0.00	0	0.00	1	0.60

AF: Allele Frequency. Only alleles with. n: Refers to the number of alleles.

Supplementary Table 3. HLA-DRB1 allele frequency from Mexico: Talpan, Chihuahua, and Xalapa

Allele	MM		Talpan		Chihuahua		Xalapa	
	(n= 502)		(n=330)		(n=88)		(n=84)	
	n	AF	n	AF	n	AF	n	AF
DRB1*01:01	35	3.49	23	3.48	9	5.11	3	1.79
DRB1*01:02	29	2.89	22	3.33	6	3.41	1	0.60
DRB1*01:03	4	0.40	2	0.30	0	0.00	2	1.19
DRB1*03:01	49	4.88	36	5.45	11	6.25	2	1.19
DRB1*03:02	2	0.20	1	0.15	0	0.00	1	0.60
DRB1*03:03	3	0.30	3	0.45	0	0.00	0	0.00
DRB1*04:01	13	1.29	10	1.52	2	1.14	1	0.60
DRB1*04:02	16	1.59	10	1.52	2	1.14	4	2.38
DRB1*04:03	24	2.39	19	2.88	2	1.14	3	1.79
DRB1*04:04	66	6.57	38	5.76	13	7.39	15	8.93
DRB1*04:05	13	1.29	13	1.97	0	0.00	0	0.00
DRB1*04:07	174	17.33	110	16.67	18	10.23	46	27.38
DRB1*04:08	1	0.10	0	0.00	0	0.00	1	0.60
DRB1*04:10	2	0.20	2	0.30	0	0.00	0	0.00
DRB1*04:11	17	1.69	8	1.21	2	1.14	7	4.17
DRB1*04:13	2	0.20	0	0.00	2	1.14	0	0.00
DRB1*07:01	74	7.37	53	8.03	15	8.52	6	3.57
DRB1*07:05	1	0.10	1	0.15	0	0.00	0	0.00

DRB1*07:08	1	0.10	0	0.00	0	0.00	1	0.60
DRB1*08:01	7	0.70	4	0.61	1	0.57	2	1.19
DRB1*08:02	100	9.96	73	11.06	13	7.39	14	8.33
DRB1*08:04	2	0.20	1	0.15	1	0.57	0	0.00
DRB1*08:10	2	0.20	2	0.30	0	0.00	0	0.00
DRB1*09:01	6	0.60	5	0.76	1	0.57	0	0.00
DRB1*10:01	13	1.29	9	1.36	3	1.70	1	0.60
DRB1*11:01	36	3.59	27	4.09	7	3.98	2	1.19
DRB1*11:02	5	0.50	3	0.45	1	0.57	1	0.60
DRB1*11:04	13	1.29	6	0.91	3	1.70	4	2.38
DRB1*12:01	6	0.60	2	0.30	3	1.70	1	0.60
DRB1*13:01	33	3.29	20	3.03	7	3.98	6	3.57
DRB1*13:02	10	1.00	7	1.06	1	0.57	2	1.19
DRB1*13:03	10	1.00	6	0.91	4	2.27	0	0.00
DRB1*13:04	1	0.10	1	0.15	0	0.00	0	0.00
DRB1*13:05	2	0.20	1	0.15	1	0.57	0	0.00
DRB1*13:10	3	0.30	0	0.00	2	1.14	1	0.60
DRB1*13:16	1	0.10	0	0.00	1	0.57	0	0.00
DRB1*14:01	15	1.49	3	0.45	9	5.11	3	1.79
DRB1*14:02	49	4.88	29	4.39	9	5.11	11	6.55
DRB1*14:04	2	0.20	2	0.30	0	0.00	0	0.00
DRB1*14:06	51	5.08	37	5.61	11	6.25	3	1.79
DRB1*15:01	47	4.68	28	4.24	12	6.82	7	4.17
DRB1*15:02	11	1.10	9	1.36	0	0.00	2	1.19
DRB1*15:03	3	0.30	1	0.15	0	0.00	2	1.19
DRB1*15:06	1	0.10	0	0.00	1	0.57	0	0.00
DRB1*16:01	6	0.60	6	0.91	0	0.00	0	0.00
DRB1*16:02	43	4.28	27	4.09	3	1.70	13	7.74

AF: Allele Frequency. Only alleles with. n: Refers to the number of alleles.

Supplementary Table 4. *HLA-DQB1* allele frequency from Mexico: Tlalpan, Chihuahua, and Xalapa

Allele	MM		Tlalpan		Chihuahua		Xalapa	
	(n= 502)		(n=330)		(n=88)		(n=84)	
	n	AF	n	AF	n	AF	n	AF
DQB1*02:01	78	7.77	59	8.94	14	7.95	5	2.98
DQB1*02:02	55	5.48	36	5.45	16	9.09	3	1.79
DQB1*03:01	222	22.11	145	21.97	43	24.43	34	20.24
DQB1*03:02	316	31.47	202	30.61	40	22.73	74	44.05
DQB1*03:03	6	0.60	4	0.61	0	0.00	2	1.19
DQB1*03:04	6	0.60	4	0.61	0	0.00	2	1.19
DQB1*04:02	118	11.75	82	12.42	14	7.95	22	13.10
DQB1*04:03	1	0.10	0	0.00	1	0.57	0	0.00
DQB1*05:01	91	9.06	62	9.39	21	11.93	8	4.76
DQB1*05:02	3	0.30	2	0.30	0	0.00	1	0.60
DQB1*05:03	3	0.30	0	0.00	3	1.70	0	0.00
DQB1*06:01	29	2.89	19	2.88	4	2.27	6	3.57
DQB1*06:02	36	3.59	22	3.33	10	5.68	4	2.38
DQB1*06:03	31	3.09	16	2.42	10	5.68	5	2.98
DQB1*06:04	6	0.60	5	0.76	0	0.00	1	0.60
DQB1*06:09	3	0.30	2	0.30	0	0.00	1	0.60

AF: Allele Frequency. Only alleles with. n: Refers to the number of alleles.

Supplementary Table 5: *HLA-A-B-DRB1-DQB1* haplotypes of the three regions from Mexico

Tlalpan	n=(2n=660)	HF (%)	Δ'
A*02:01-B*35:01-DRB1*08:02-DQB1*04:02	13	1.97	0.2209
A*68:01-B*39:01-DRB1*04:07-DQB1*03:02	13	1.97	0.2389
A*68:01-B*39:01-DRB1*08:02-DQB1*04:02	10	1.52	0.1935
A*01:01-B*08:01-DRB1*03:01-DQB1*02:01	7	1.06	0.8678
A*02:01-B*35:01-DRB1*04:07-DQB1*03:02	7	1.06	0.0026
Chihuahua	n=(2n=176)	HF (%)	Δ'
A*01:01-B*08:01-DRB1*03:01-DQB1*02:01	4	2.27	0.6444
A*24:02-B*39:01-DRB1*04:07-DQB1*03:02	3	1.70	0.5572
A*01:01-B*14:01-DRB1*01:02-DQB1*05:01	2	1.14	0.3788
A*02:01-B*51:01-DRB1*14:06-DQB1*03:01	2	1.14	0.2472
A*03:01-B*07:02-DRB1*15:01-DQB1*06:02	2	1.14	0.4731
A*02:01-B*51:01-DRB1*01:01-DQB1*05:01	2	1.14	0.2472
A*29:01-B*44:02-DRB1*07:01-DQB1*02:02	2	1.14	0.4601
Xalapa	n=(2n=168)	H.F.	Δ'
A*24:02-B*35:01-DRB1*04:07-DQB1*03:02	5	2.98	0.6098
A*02:01-B*35:01-DRB1*04:07-DQB1*03:02	4	2.38	0.0544
A*02:01-B*35:01-DRB1*08:02-DQB1*04:02	4	2.38	0.2448
A*68:01-B*39:01-DRB1*04:07-DQB1*03:02	3	1.79	0.2195
A*02:01-B*35:02-DRB1*04:07-DQB1*03:02	3	1.79	0.6585
A*31:01-B*39:01-DRB1*08:02-DQB1*04:02	2	1.19	0.4545
A*68:01-B*40:02-DRB1*04:07-DQB1*03:02	2	1.19	0.5447
A*24:02-B*35:01-DRB1*14:02-DQB1*03:01	2	1.19	0.2453
A*68:01-B*35:01-DRB1*04:04-DQB1*03:02	2	1.19	0.1818
A*02:01-B*40:02-DRB1*04:07-DQB1*03:02	2	1.19	0.3171

HF: Haplotype frequency. Only haplotypes with HF \geq 1.0% are included in this table. Δ' : Standardized linkage disequilibrium. n: Refers to the number of individuals analyzed.