



Supplementary Figure 1: MOG-IgG in serum tested by an in-house cell-based assay using live cells transfected with full-length human MOG. HEK293T cells were transiently transfected with full-length human MOG (Hu-MOG) and patient serum tested by an in-house cell-based assay. Binding of IgG from patient serum using an anti-human IgG antibody (red) to cells transfected with MOG (green), merged images (yellow). The patient's serum IgG could bind to Hu-MOG, while serum IgG from control group did not bind (Scale bar:20 μ m).

MOG, myelin oligodendrocyte glycoprotein; MOG-IgG, myelin oligodendrocyte glycoprotein-immunoglobulin G.

Supplementary Table 1. HLA alleles in patients with MOGAD and in healthy controls

#HLA_allele	Patients			Control			<i>p</i>	<i>p</i> ^{adj}	OR	95% CI
	positive	negative	freq(%)	positive	negative	freq(%)				
A*02:06	10	180	5.26	25	937	2.6	0.062444	0.468327	2.08	0.88-4.58
A*02:07	34	156	17.89	119	843	12.37	0.046527	0.468327	1.54	0.98-2.37
A*11:02	10	180	5.26	33	929	3.43	0.212949	0.532372	1.56	0.67-3.32
A*31:01	2	188	1.05	27	935	2.81	0.207609	0.532372	0.37	0.04-1.49
A*33:03	12	178	6.32	97	865	10.08	0.134467	0.532372	0.6	0.29-1.13
A*24:07	2	188	1.05	3	959	0.31	0.192618	0.532372	3.4	0.28-29.85
A*01:03	1	189	0.53	1	961	0.1	0.302779	0.648811	5.07	0.06-398.19
A*26:01	3	187	1.58	24	938	2.49	0.603159	0.972348	0.63	0.12-2.1
A*29:01	2	188	1.05	7	955	0.73	0.648232	0.972348	1.45	0.15-7.7
A*30:01	3	187	1.58	25	937	2.6	0.605355	0.972348	0.6	0.12-2
A*02:01	13	177	6.84	71	891	7.38	0.879523	0.997508	0.92	0.46-1.72
A*02:03	10	180	5.26	48	914	4.99	0.856245	0.997508	1.06	0.47-2.17
A*11:01	56	134	29.47	289	673	30.04	0.931008	0.997508	0.97	0.68-1.38
A*24:02	31	159	16.32	151	811	15.7	0.827978	0.997508	1.05	0.66-1.62
A*32:01	1	189	0.53	5	957	0.52	1	1	1.01	0.02-9.12
B*48:03	3	187	1.58	0	962	0	0.004427	0.137249	Inf	2.11-Inf
B*13:02	1	189	0.53	26	936	2.7	0.109013	0.780852	0.19	0-1.18
B*15:01	11	179	5.79	39	923	4.05	0.327454	0.780852	1.45	0.66-2.96
B*15:10	1	189	0.53	0	962	0	0.164931	0.780852	Inf	0.13-Inf
B*15:11	4	186	2.11	10	952	1.04	0.266374	0.780852	2.05	0.46-7.19
B*15:12	2	188	1.05	3	959	0.31	0.192618	0.780852	3.4	0.28-29.85
B*15:18	2	188	1.05	5	957	0.52	0.325307	0.780852	2.03	0.19-12.54
B*27:04	7	183	3.68	22	940	2.29	0.306022	0.780852	1.63	0.58-4.03
B*35:05	2	188	1.05	5	957	0.52	0.325307	0.780852	2.03	0.19-12.54
B*40:02	4	186	2.11	11	951	1.14	0.290372	0.780852	1.86	0.43-6.36
B*46:01	35	155	18.42	136	826	14.14	0.146064	0.780852	1.37	0.88-2.09
B*55:02	9	181	4.74	28	934	2.91	0.182075	0.780852	1.66	0.68-3.69
B*73:01	1	189	0.53	0	962	0	0.164931	0.780852	Inf	0.13-Inf
B*07:05	3	187	1.58	8	954	0.83	0.403599	0.838144	1.91	0.32-8.06
B*35:01	2	188	1.05	21	941	2.18	0.405553	0.838144	0.48	0.05-1.98
B*38:01	1	189	0.53	3	959	0.31	0.514217	0.937689	1.69	0.03-21.18
B*57:01	1	189	0.53	3	959	0.31	0.514217	0.937689	1.69	0.03-21.18
B*07:02	1	189	0.53	12	950	1.25	0.706272	1	0.42	0.01-2.86
B*08:01	1	189	0.53	5	957	0.52	1	1	1.01	0.02-9.12
B*13:01	14	176	7.37	75	887	7.8	1	1	0.94	0.48-1.73
B*15:02	11	179	5.79	53	909	5.51	0.862665	1	1.05	0.49-2.09
B*15:25	2	188	1.05	7	955	0.73	0.648232	1	1.45	0.15-7.7
B*38:02	4	186	2.11	30	932	3.12	0.638606	1	0.67	0.17-1.93
B*39:01	2	188	1.05	15	947	1.56	1	1	0.67	0.07-2.93
B*40:01	29	161	15.26	152	810	15.8	0.91341	1	0.96	0.6-1.49
B*44:03	1	189	0.53	9	953	0.94	1	1	0.56	0.01-4.09
B*48:01	2	188	1.05	12	950	1.25	1	1	0.84	0.09-3.83
B*51:01	8	182	4.21	46	916	4.78	0.852272	1	0.88	0.35-1.91
B*54:01	7	183	3.68	28	934	2.91	0.642017	1	1.28	0.46-3.05
B*51:02	2	188	1.05	16	946	1.66	0.752898	1	0.63	0.07-2.71
B*58:01	17	173	8.95	92	870	9.56	0.892361	1	0.93	0.51-1.62
C*01:02	47	143	24.74	178	784	18.5	0.056692	0.314428	1.45	0.98-2.11
C*07:02	22	168	11.58	171	791	17.78	0.04285	0.314428	0.61	0.36-0.98

C*12:02	10	180	5.26	26	936	2.7	0.069873	0.314428	2	0.84-4.37
C*06:02	2	188	1.05	38	924	3.95	0.049289	0.314428	0.26	0.03-1.02
C*15:05	4	186	2.11	7	955	0.73	0.091644	0.329917	2.93	0.62-11.66
C*03:36	1	189	0.53	0	962	0	0.164931	0.494792	Inf	0.13-Inf
C*01:06	1	189	0.53	1	961	0.1	0.302779	0.778574	5.07	0.06-398.19
C*15:02	9	181	4.74	34	928	3.53	0.404601	0.910352	1.36	0.56-2.95
C*03:03	12	178	6.32	51	911	5.3	0.599765	0.981434	1.2	0.57-2.35
C*08:03	1	189	0.53	3	959	0.31	0.514217	0.981434	1.69	0.03-21.18
C*14:03	1	189	0.53	4	958	0.42	0.594616	0.981434	1.27	0.03-12.9
C*03:02	17	173	8.95	93	869	9.67	0.892525	1	0.92	0.5-1.6
C*03:04	26	164	13.68	126	836	13.1	0.814974	1	1.05	0.64-1.68
C*04:01	9	181	4.74	50	912	5.2	1	1	0.91	0.39-1.91
C*04:03	3	187	1.58	13	949	1.35	0.737109	1	1.17	0.21-4.32
C*08:01	16	174	8.42	84	878	8.73	1	1	0.96	0.51-1.7
C*14:02	6	184	3.16	37	925	3.85	0.834249	1	0.82	0.28-1.99
C*12:03	3	187	1.58	23	939	2.39	0.788013	1	0.66	0.12-2.2
DQA1*01:02	51	139	26.84	192	770	19.96	0.040663	0.221472	1.47	1.01-2.13
DQA1*01:03	7	183	3.68	79	883	8.21	0.033232	0.221472	0.43	0.16-0.94
DQA1*01:04	21	169	11.05	66	896	6.86	0.051109	0.221472	1.69	0.95-2.88
DQA1*02:01	3	187	1.58	42	920	4.37	0.097633	0.317309	0.35	0.07-1.12
DQA1*01:01	10	180	5.26	35	927	3.64	0.304423	0.659583	1.47	0.64-3.1
DQA1*01:05	4	186	2.11	11	951	1.14	0.290372	0.659583	1.86	0.43-6.36
DQA1*05:03	2	188	1.05	23	939	2.39	0.410461	0.762285	0.43	0.05-1.78
DQA1*03:01	11	179	5.79	65	897	6.76	0.749442	0.889023	0.85	0.4-1.66
DQA1*03:02	28	162	14.74	136	826	14.14	0.820637	0.889023	1.05	0.65-1.65
DQA1*05:05	12	178	6.32	72	890	7.48	0.648994	0.889023	0.83	0.4-1.59
DQA1*05:01	11	179	5.79	64	898	6.65	0.749313	0.889023	0.86	0.4-1.69
DQA1*06:01	14	176	7.37	80	882	8.32	0.772211	0.889023	0.88	0.45-1.6
DQA1*03:03	16	174	8.42	80	882	8.32	1	1	1.01	0.54-1.8
DQB1*05:02	36	154	18.95	103	859	10.71	0.002254	0.031556	1.95	1.25-3
DQB1*05:03	15	175	7.89	40	922	4.16	0.03853	0.269712	1.97	0.99-3.75
DQB1*02:02	3	187	1.58	40	922	4.16	0.09536	0.358375	0.37	0.07-1.18
DQB1*03:01	28	162	14.74	190	772	19.75	0.127991	0.358375	0.7	0.44-1.09
DQB1*04:01	15	175	7.89	48	914	4.99	0.115982	0.358375	1.63	0.83-3.04
DQB1*02:01	11	179	5.79	65	897	6.76	0.749442	0.874349	0.85	0.4-1.66
DQB1*03:02	11	179	5.79	65	897	6.76	0.749442	0.874349	0.85	0.4-1.66
DQB1*03:03	29	161	15.26	158	804	16.42	0.747472	0.874349	0.92	0.57-1.43
DQB1*06:01	18	172	9.47	112	850	11.64	0.452115	0.874349	0.79	0.44-1.36
DQB1*06:02	11	179	5.79	50	912	5.2	0.723494	0.874349	1.12	0.52-2.23
DQB1*06:03	3	187	1.58	9	953	0.94	0.429812	0.874349	1.7	0.29-6.89
DQB1*06:09	2	188	1.05	18	944	1.87	0.55707	0.874349	0.56	0.06-2.36
DQB1*05:01	7	183	3.68	37	925	3.85	1	1	0.96	0.35-2.22
DQB1*06:04	1	189	0.53	7	955	0.73	1	1	0.72	0.02-5.67
DPA1*02:02	124	66	65.26	550	412	57.17	0.04384	0.175361	1.41	1.01-1.98
DPA1*02:07	1	189	0.53	0	962	0	0.164931	0.329861	Inf	0.13-Inf
DPA1*01:03	46	144	24.21	268	694	27.86	0.32743	0.436573	0.83	0.56-1.2
DPA1*02:01	19	171	10	99	863	10.29	1	1	0.97	0.54-1.65
DPB1*107:01	6	184	3.16	0	962	0	1.88E-05	0.000169	Inf	6.08-Inf
DPB1*104:01	3	187	1.58	0	962	0	0.004427	0.026564	Inf	2.11-Inf
DPB1*13:01	7	183	3.68	82	880	8.52	0.02456	0.110521	0.41	0.16-0.91
DPB1*04:02	1	189	0.53	24	938	2.49	0.104133	0.374879	0.21	0.01-1.29

DPB1*22:XX	1	189	0.53	0	962	0	0.164931	0.494792	Inf	0.13-Inf
DPB1*01:01	1	189	0.53	1	961	0.1	0.302779	0.729996		5.07 0.06-398.19
DPB1*04:01	11	179	5.79	77	885	8	0.369542	0.729996		0.71 0.33-1.37
DPB1*17:01	2	188	1.05	21	941	2.18	0.405553	0.729996		0.48 0.05-1.98
DPB1*19:01	2	188	1.05	5	957	0.52	0.325307	0.729996		2.03 0.19-12.54
DPB1*02:01	23	167	12.11	130	832	13.51	0.641905	0.782138		0.88 0.52-1.43
DPB1*02:02	16	174	8.42	71	891	7.38	0.651781	0.782138		1.15 0.61-2.06
DPB1*03:01	7	183	3.68	47	915	4.89	0.575571	0.782138		0.74 0.28-1.69
DPB1*05:01	89	101	46.84	425	537	44.18	0.523322	0.782138		1.11 0.8-1.54
DPB1*31:01	1	189	0.53	3	959	0.31	0.514217	0.782138		1.69 0.03-21.18
DPB1*09:01	2	188	1.05	9	953	0.94	0.700543	0.78811		1.13 0.12-5.5
DPB1*21:01	3	187	1.58	21	941	2.18	0.783912	0.830025		0.72 0.14-2.44
DPB1*14:01	7	183	3.68	35	927	3.64	1	1		1.01 0.37-2.36
DPB1*135:01	8	182	4.21	0	962	0	4.83E-07	8.70E-06	Inf	8.9-Inf
DRB1*08:03	4	186	2.11	69	893	7.17	0.005451	0.127752		0.28 0.07-0.76
DRB1*16:02	17	173	8.95	41	921	4.26	0.010646	0.127752		2.21 1.15-4.08
DRB1*14:05	8	182	4.21	16	946	1.66	0.04459	0.267541		2.6 0.95-6.54
DRB1*15:02	11	179	5.79	26	936	2.7	0.039734	0.267541		2.21 0.97-4.73
DRB1*04:05	18	172	9.47	56	906	5.82	0.073523	0.294093		1.69 0.91-3.01
DRB1*07:01	3	187	1.58	43	919	4.47	0.067821	0.294093		0.34 0.07-1.09
DRB1*15:01	28	162	14.74	108	854	11.23	0.17641	0.604834		1.37 0.84-2.17
DRB1*04:03	2	188	1.05	24	938	2.49	0.291595	0.644884		0.42 0.05-1.7
DRB1*04:04	2	188	1.05	4	958	0.42	0.258858	0.644884		2.54 0.23-17.9
DRB1*10:01	4	186	2.11	10	952	1.04	0.266374	0.644884		2.05 0.46-7.19
DRB1*11:01	7	183	3.68	55	907	5.72	0.295572	0.644884		0.63 0.24-1.42
DRB1*13:01	3	187	1.58	8	954	0.83	0.403599	0.668755		1.91 0.32-8.06
DRB1*14:07	1	189	0.53	2	960	0.21	0.417972	0.668755		2.54 0.04-48.95
DRB1*14:54	11	179	5.79	41	921	4.26	0.341199	0.668755		1.38 0.63-2.8
DRB1*14:18	1	189	0.53	2	960	0.21	0.417972	0.668755		2.54 0.04-48.95
DRB1*03:01	11	179	5.79	67	895	6.96	0.63763	0.900183		0.82 0.38-1.6
DRB1*13:02	3	187	1.58	24	938	2.49	0.603159	0.900183		0.63 0.12-2.1
DRB1*12:02	15	175	7.89	88	874	9.15	0.676932	0.902576		0.85 0.45-1.53
DRB1*09:01	28	162	14.74	155	807	16.11	0.744524	0.903477		0.9 0.56-1.41
DRB1*13:12	2	188	1.05	16	946	1.66	0.752898	0.903477		0.63 0.07-2.71
DRB1*12:01	4	186	2.11	28	934	2.91	0.808237	0.923699		0.72 0.18-2.09
DRB1*01:01	1	189	0.53	10	952	1.04	1	1		0.5 0.01-3.58
DRB1*04:06	5	185	2.63	26	936	2.7	1	1		0.97 0.29-2.62
DRB1*08:02	1	189	0.53	7	955	0.73	1	1		0.72 0.02-5.67

Supplementary Table 2. Association of the *DQB1*05:02-DRB1*16:02* alleles or haplotype with MOGAD

Alleles or Haplotype	Patients			Controls (n = 481)			<i>p</i>	<i>p</i> ^{adj}	OR [95% CI]
	positive	negative	freq	positive	negative	freq			
All patients (n = 95)									
<i>DQB1*05:02</i>	36	154	0.1895	103	859	0.1071	0.0023	0.0316	1.95[1.25-3.00]
<i>DRB1*16:02</i>	17	173	0.0895	41	921	0.0426	0.0106	0.1278	2.21 [1.15-4.08]
<i>DQB1*05:02- DRB1*16:02</i>	14	81	0.1474	38	443	0.0790	0.0478	0.0956	2.01[0.96-4.01]
Pediatric-onset (n = 51)									
<i>DQB1*05:02</i>	23	79	0.2255	103	859	0.1071	0.0011	0.0154	2.43[1.39-4.11]
<i>DRB1*16:02</i>	13	89	0.1275	41	921	0.0426	0.0011	0.0221	3.28 [1.55-6.52]
<i>DRB1*16:02-DQB1*05:02</i>	10	41	0.1961	38	443	0.0790	0.0166	0.0331	2.84[1.17-6.35]
Adult-onset (n = 44)									
<i>DQB1*05:02</i>	13	75	0.1477	103	859	0.1071	0.2839	0.8516	1.44[0.71-2.74]
<i>DRB1*16:02</i>	4	84	0.0455	41	921	0.0426	0.7856	0.9966	1.07 [0.27-3.06]
<i>DRB1*16:02-DQB1*05:02</i>	4	40	0.0909	38	443	0.0790	0.7703	1	1.17[0.29-3.49]

MOGAD, Myelin oligodendrocyte glycoprotein associated disorders; freq, frequency; CI, confidence interval; OR, odds ratio
p-values adjusted for multiple testing via the false discovery rate (FDR) step-up method

Supplementary Table 3. HLA alleles in adult-onset patients with MOGAD and in healthy controls

#HLA_allele	Patients			Control			<i>p</i>	<i>p</i> ^{adj}	OR	95% CI
	positive	negative	freq(%)	positive	negative	freq(%)				
A*02:06	7	81	7.95	25	937	2.6	0.013582	0.162983	3.23	1.15-8
A*02:07	18	70	20.45	119	843	12.37	0.045244	0.271462	1.82	0.98-3.22
A*01:03	1	87	1.14	1	961	0.1	0.160668	0.642673	10.99	0.14-861.25
A*02:03	7	81	7.95	48	914	4.99	0.214451	0.643353	1.64	0.61-3.82
A*02:01	5	83	5.68	71	891	7.38	0.671636	0.869158	0.76	0.23-1.92
A*11:01	24	64	27.27	289	673	30.04	0.62815	0.869158	0.87	0.51-1.45
A*26:01	1	87	1.14	24	938	2.49	0.715318	0.869158	0.45	0.01-2.83
A*31:01	1	87	1.14	27	935	2.81	0.724298	0.869158	0.4	0.01-2.48
A*33:03	7	81	7.95	97	865	10.08	0.708402	0.869158	0.77	0.29-1.73
A*29:01	1	87	1.14	7	955	0.73	0.504753	0.869158	1.57	0.03-12.43
A*24:02	13	75	14.77	151	811	15.7		1	0.93	0.46-1.74
A*11:02	3	85	3.41	33	929	3.43		1	0.99	0.19-3.27
B*46:01	19	69	21.59	136	826	14.14	0.082154	0.502857	1.67	0.92-2.92
B*54:01	7	81	7.95	28	934	2.91	0.022043	0.502857	2.88	1.03-7.02
B*48:03	1	87	1.14	0	962	0	0.08381	0.502857	Inf	0.28-Inf
B*73:01	1	87	1.14	0	962	0	0.08381	0.502857	Inf	0.28-Inf
B*07:05	1	87	1.14	8	954	0.83	0.546578	0.874526	1.37	0.03-10.42
B*08:01	1	87	1.14	5	957	0.52	0.40933	0.874526	2.2	0.05-19.96
B*15:01	5	83	5.68	39	923	4.05	0.407588	0.874526	1.43	0.43-3.76
B*15:25	1	87	1.14	7	955	0.73	0.504753	0.874526	1.57	0.03-12.43
B*27:04	3	85	3.41	22	940	2.29	0.459268	0.874526	1.51	0.28-5.17
B*40:01	11	77	12.5	152	810	15.8	0.537841	0.874526	0.76	0.36-1.48
B*40:02	2	86	2.27	11	951	1.14	0.298396	0.874526	2.01	0.21-9.43
B*48:01	2	86	2.27	12	950	1.25	0.330553	0.874526	1.84	0.2-8.47
B*55:02	5	83	5.68	28	934	2.91	0.188345	0.874526	2.01	0.59-5.46
B*38:02	1	87	1.14	30	932	3.12	0.507691	0.874526	0.36	0.01-2.21
B*15:12	1	87	1.14	3	959	0.31	0.295768	0.874526	3.67	0.07-46.2
B*44:03	1	87	1.14	9	953	0.94	0.584908	0.877362	1.22	0.03-8.96
B*07:02	1	87	1.14	12	950	1.25		1	0.91	0.02-6.29
B*13:01	6	82	6.82	75	887	7.8		1	0.87	0.3-2.06
B*15:02	4	84	4.55	53	909	5.51		1	0.82	0.21-2.3
B*35:01	2	86	2.27	21	941	2.18		1	1.04	0.12-4.38
B*51:01	3	85	3.41	46	916	4.78	0.7917		0.7	0.14-2.26
B*39:01	1	87	1.14	15	947	1.56		1	0.73	0.02-4.83
B*51:02	1	87	1.14	16	946	1.66		1	0.68	0.02-4.48
B*58:01	8	80	9.09	92	870	9.56		1	0.95	0.38-2.04
C*01:02	25	63	28.41	178	784	18.5	0.033377	0.434839	1.75	1.02-2.91
C*01:06	1	87	1.14	1	961	0.1	0.160668	0.434839	10.99	0.14-861.25
C*07:02	10	78	11.36	171	791	17.78	0.141646	0.434839	0.59	0.27-1.18
C*12:02	5	83	5.68	26	936	2.7	0.173936	0.434839	2.17	0.63-5.94
C*15:02	6	82	6.82	34	928	3.53	0.138442	0.434839	2	0.67-5
C*15:05	2	86	2.27	7	955	0.73	0.170153	0.434839	3.17	0.32-16.98
C*08:03	1	87	1.14	3	959	0.31	0.295768	0.633789	3.67	0.07-46.2
C*14:03	1	87	1.14	4	958	0.42	0.355015	0.665654	2.75	0.06-28.18
C*08:01	5	83	5.68	84	878	8.73	0.424689	0.707815	0.63	0.19-1.59
C*03:02	9	79	10.23	93	869	9.67	0.850743		1.06	0.45-2.22
C*03:03	4	84	4.55	51	911	5.3		1	0.85	0.22-2.4

C*03:04	12	76	13.64	126	836	13.1	0.86927	1	1.05	0.5-2.01
C*04:01	4	84	4.55	50	912	5.2	1	1	0.87	0.22-2.45
C*04:03	1	87	1.14	13	949	1.35	1	1	0.84	0.02-5.71
C*12:03	2	86	2.27	23	939	2.39	1	1	0.95	0.11-3.95
DQA1*01:01	6	82	6.82	35	927	3.64	0.14655	0.806027	1.94	0.65-4.84
DQA1*01:04	10	78	11.36	66	896	6.86	0.130163	0.806027	1.74	0.77-3.58
DQA1*01:02	19	69	21.59	192	770	19.96	0.678855	1	1.1	0.61-1.91
DQA1*01:03	5	83	5.68	79	883	8.21	0.538064	1	0.67	0.21-1.71
DQA1*03:01	4	84	4.55	65	897	6.76	0.65079	1	0.66	0.17-1.83
DQA1*03:02	13	75	14.77	136	826	14.14	0.873205	1	1.05	0.52-1.98
DQA1*03:03	10	78	11.36	80	882	8.32	0.31999	1	1.41	0.63-2.88
DQA1*01:05	1	87	1.14	11	951	1.14	1	1	0.99	0.02-6.99
DQA1*05:01	6	82	6.82	64	898	6.65	1	1	1.03	0.35-2.46
DQA1*05:05	7	81	7.95	72	890	7.48	0.832874	1	1.07	0.4-2.42
DQA1*06:01	7	81	7.95	80	882	8.32	1	1	0.95	0.36-2.15
DQB1*05:03	9	79	10.23	40	922	4.16	0.0168	0.201597	2.62	1.08-5.75
DQB1*04:01	9	79	10.23	48	914	4.99	0.047832	0.286993	2.17	0.9-4.68
DQB1*05:02	13	75	14.77	103	859	10.71	0.283879	0.851636	1.44	0.71-2.74
DQB1*02:02	1	87	1.14	40	922	4.16	0.247027	0.851636	0.27	0.01-1.61
DQB1*03:01	14	74	15.91	190	772	19.75	0.481273	0.918922	0.77	0.39-1.41
DQB1*03:02	4	84	4.55	65	897	6.76	0.65079	0.918922	0.66	0.17-1.83
DQB1*03:03	13	75	14.77	158	804	16.42	0.76465	0.918922	0.88	0.44-1.65
DQB1*05:01	2	86	2.27	37	925	3.85	0.765769	0.918922	0.58	0.07-2.32
DQB1*06:02	6	82	6.82	50	912	5.2	0.460085	0.918922	1.33	0.45-3.24
DQB1*06:03	1	87	1.14	9	953	0.94	0.584908	0.918922	1.22	0.03-8.96
DQB1*02:01	6	82	6.82	65	897	6.76	1	1	1.01	0.35-2.42
DQB1*06:01	10	78	11.36	112	850	11.64	1	1	0.97	0.44-1.96
DPA1*02:02	59	29	67.05	550	412	57.17	0.090076	0.270228	1.52	0.94-2.51
DPA1*02:01	6	82	6.82	99	863	10.29	0.35718	0.535769	0.64	0.22-1.5
DPA1*01:03	23	65	26.14	268	694	27.86	0.804036	0.804036	0.92	0.53-1.53
DPB1*135:01	4	84	4.55	0	962	0	4.63E-05	0.000648	Inf	7.39-Inf
DPB1*107:01	3	85	3.41	0	962	0	0.00057	0.003993	Inf	4.58-Inf
DPB1*104:01	1	87	1.14	0	962	0	0.08381	0.293333	Inf	0.28-Inf
DPB1*22:XX	1	87	1.14	0	962	0	0.08381	0.293333	Inf	0.28-Inf
DPB1*05:01	44	44	50	425	537	44.18	0.31433	0.622324	1.26	0.8-2
DPB1*13:01	4	84	4.55	82	880	8.52	0.227553	0.622324	0.51	0.13-1.41
DPB1*14:01	1	87	1.14	35	927	3.64	0.355614	0.622324	0.3	0.01-1.86
DPB1*31:01	1	87	1.14	3	959	0.31	0.295768	0.622324	3.67	0.07-46.2
DPB1*04:01	5	83	5.68	77	885	8	0.537701	0.836424	0.69	0.21-1.76
DPB1*02:02	5	83	5.68	71	891	7.38	0.671636	0.910405	0.76	0.23-1.92
DPB1*04:02	1	87	1.14	24	938	2.49	0.715318	0.910405	0.45	0.01-2.83
DPB1*03:01	5	83	5.68	47	915	4.89	0.795439	0.928012	1.17	0.35-3.05
DPB1*02:01	11	77	12.5	130	832	13.51	0.871606	0.938653	0.91	0.43-1.79
DPB1*21:01	2	86	2.27	21	941	2.18	1	1	1.04	0.12-4.38
DRB1*04:05	11	77	12.5	56	906	5.82	0.021486	0.182631	2.31	1.05-4.69
DRB1*15:02	7	81	7.95	26	936	2.7	0.016084	0.182631	3.11	1.1-7.64
DRB1*14:05	4	84	4.55	16	946	1.66	0.079042	0.447907	2.81	0.67-8.98
DRB1*15:01	14	74	15.91	108	854	11.23	0.221245	0.785898	1.5	0.75-2.79
DRB1*14:18	1	87	1.14	2	960	0.21	0.231146	0.785898	5.5	0.09-106.66
DRB1*08:03	4	84	4.55	69	893	7.17	0.509628	0.988448	0.62	0.16-1.71

DRB1*11:01	3	85	3.41	55	907	5.72	0.470687	0.988448	0.58	0.11-1.86	
DRB1*13:01	1	87	1.14	8	954	0.83	0.546578	0.988448	1.37	0.03-10.42	
DRB1*14:54	5	83	5.68	41	921	4.26	0.58144	0.988448	1.35	0.41-3.55	
DRB1*08:02	1	87	1.14	7	955	0.73	0.504753	0.988448	1.57	0.03-12.43	
DRB1*04:06	3	85	3.41	26	936	2.7	0.728794	0.996581	1.27	0.24-4.28	
DRB1*09:01	13	75	14.77	155	807	16.11	0.879336	0.996581	0.9	0.45-1.69	
DRB1*12:02	7	81	7.95	88	874	9.15	0.847064	0.996581	0.86	0.32-1.93	
DRB1*12:01	3	85	3.41	28	934	2.91	0.73953	0.996581	1.18	0.22-3.93	
DRB1*16:02	4	84	4.55	41	921	4.26	0.785566	0.996581	1.07	0.27-3.06	
DRB1*03:01	6	82	6.82	67	895	6.96		1	1	0.98	0.34-2.34
DRB1*10:01	1	87	1.14	10	952	1.04		1	1	1.09	0.02-7.85
