

**Supplemental File 1 - SNPs used in this study**

Chromosome	Marker <sup>a</sup>	SNP no.	Position	Gene
1	1	rs6586516	17498118	<i>PADI4</i>
1	2	rs2477142	17501591	<i>PADI4</i>
1	3	rs2501787	17503314	<i>PADI4</i>
1	4	rs1886302	17507983	<i>PADI4</i>
1	5	rs2147333	17519113	<i>PADI4</i>
1	6	rs1635586	17537357	<i>PADI4</i>
1	7	rs11203368	17539095	<i>PADI4</i>
1	8	rs2240337	17546809	<i>PADI4</i>
1	9	rs6683201	17553864	<i>PADI4</i>
1	10	rs2428735	17557761	<i>PADI4</i>
1	11	rs3789607	114167957	<i>PTPN22</i>
2	1	rs6740131	191597827	<i>STAT4</i>
2	2	rs3024912	191601332	<i>STAT4</i>
2	3	rs3024908	191602386	<i>STAT4</i>
2	4	rs3024896	191604961	<i>STAT4</i>
2	5	rs16833215	191622044	<i>STAT4</i>
2	6	rs3771327	191629016	<i>STAT4</i>
2	7	rs1517352	191639709	<i>STAT4</i>
2	8	rs1400656	191643278	<i>STAT4</i>
2	9	rs2459611	191647432	<i>STAT4</i>
2	10	rs16833239	191648505	<i>STAT4</i>
2	11	rs4555370	191699704	<i>STAT4</i>
2	12	rs7572482	191723317	<i>STAT4</i>
2	13	rs926169	204430997	<i>CTLA4</i>
2	14	rs231726	204449111	<i>CTLA4</i>
5	1	rs2277025	156392673	<i>HAVCRI</i>
5	2	rs10038271	156402979	<i>HAVCRI</i>
5	3	rs7706174	156407976	<i>HAVCRI</i>
5	4	rs17573010	156410409	<i>HAVCRI</i>
5	5	rs4704843	156423731	<i>HAVCRI</i>
5	6	rs12152865	156436345	<i>HAVCR2</i>
5	7	rs13176785	156448854	<i>HAVCR2</i>
5	8	rs919747	156463908	<i>HAVCR2</i>
5	9	rs162889	131652285	<i>SLC22A4</i>
5	10	rs2662314	131653068	<i>SLC22A4</i>
5	11	rs270613	131668482	<i>SLC22A4</i>
5	12	rs272893	131690961	<i>SLC22A4</i>
5	13	rs2073506	131422637	<i>IL3</i>
5	14	rs2243288	132045843	<i>IL4</i>
5	15	rs2243290	132046068	<i>IL4</i>
6	1	rs2517912	219791923	<i>HLA-F</i>
6	2	rs9258170	29797569	<i>HLA-F</i>
6	3	rs9258186	29800313	<i>HLA-F</i>

6	4	rs2523404	29803692	<i>HLA-F</i>
6	5	rs2272874	29804224	<i>HLA-F</i>
6	6	rs1611350	29806800	<i>HLA-F</i>
6	7	rs1610601	29808162	<i>HLA-F</i>
6	8	rs7741100	29876102	
6	9	rs2523790	29911629	<i>HLA-G</i>
6	10	rs2735007	29916178	<i>HLA-G</i>
6	11	rs762324	30563865	<i>HLA-E</i>
6	12	rs9264508	31341193	<i>HLA-C</i>
6	13	rs2524099	31344030	<i>HLA-C</i>
6	14	rs9394047	31344229	<i>HLA-C</i>
6	15	rs2249742	31348700	<i>HLA-C</i>
6	16	rs6906846	31353715	<i>HLA-C</i>
6	17	rs7453967	31422222	<i>HLA-B</i>
6	18	rs2156875	31425326	<i>HLA-B</i>
6	19	rs2395175	32513004	<i>HLA-DRA</i>
6	20	rs3129871	32514320	<i>HLA-DRA</i>
6	21	rs2239804	32519501	<i>HLA-DRA</i>
6	22	rs3129890	32522251	<i>HLA-DRA</i>
6	23	rs13199787	32813254	<i>HLA-DQA2</i>
6	24	rs10807113	32830164	<i>HLA-DQA2</i>
6	25	rs7774954	32832167	<i>HLA-DQA2</i>
6	26	rs2856997	32889754	<i>HLA-DOB</i>
6	27	rs7383287	32891064	<i>HLA-DOB</i>
6	28	rs2071472	32892598	<i>HLA-DOB</i>
6	29	rs2857107	32893493	<i>HLA-DOB</i>
6	30	rs9501239	33003558	<i>HLA-DMB</i>
6	31	rs154978	33007274	<i>HLA-DMB</i>
6	32	rs3132131	33007463	<i>HLA-DMB</i>
6	33	rs154972	33008629	<i>HLA-DMB</i>
6	34	rs181997	33008696	<i>HLA-DMB</i>
6	35	rs3132132	33009912	<i>HLA-DMB</i>
6	36	rs68600	33011702	<i>HLA-DMB</i>
6	37	rs151719	33011878	<i>HLA-DMB</i>
6	38	rs171329	33012639	<i>HLA-DMB</i>
6	39	rs1480380	33021224	<i>HLA-DMA</i>
6	40	rs3135029	33029752	<i>HLA-DMA</i>
6	41	rs9378127	33030437	<i>HLA-DMA</i>
6	42	rs209474	33032562	<i>HLA-DMA</i>
6	43	rs176248	33073920	<i>HLA-DOA</i>
6	44	rs206762	33078428	<i>HLA-DOA</i>
6	45	rs3128931	33079686	<i>HLA-DOA</i>
6	46	rs3129304	33081721	<i>HLA-DOA</i>
6	47	rs86567	33084737	<i>HLA-DOA</i>
6	48	rs403414	33085293	<i>HLA-DOA</i>
6	49	rs3763342	33086975	<i>HLA-DOA</i>

6	50	rs9276991	33089826	<i>HLA-DOA</i>
6	51	rs3130604	33093030	<i>HLA-DOA</i>
6	52	rs6933994	33095098	<i>HLA-DOA</i>
6	53	rs9296068	33096673	
6	54	rs763469	33112365	
6	55	rs2395309	33134224	<i>HLA-DPA1</i>
6	56	rs3077	33141000	<i>HLA-DPA1</i>
6	57	rs2301226	33142574	<i>HLA-DPA1</i>
6	58	rs1126534	33145617	<i>HLA-DPA1</i>
6	59	rs1431399	33149012	<i>HLA-DPA1</i>
6	60	rs987870	33150858	<i>HLA-DPA1</i>
6	61	rs9277565	33164875	<i>HLA-DPBI</i>
6	62	rs2281390	33167647	<i>HLA-DPBI</i>
6	63	rs2281388	33168096	<i>HLA-DPBI</i>
6	64	rs3117222	33168927	<i>HLA-DPBI</i>
6	65	rs3128918	33169076	<i>HLA-DPBI</i>
6	66	rs3130192	33169908	<i>HLA-DPBI</i>

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<sup>a</sup>The marker number assigned to each SNP corresponds to the numbers in the LD plot in Figure 1.