

Supplementary material of Hypertensive Patients Exhibit Enhanced Thrombospondin-1 Levels at High-Altitude

Table S1. SNPs of THBS-CD family genes selected for genotyping.

CH R n	SNP	Consequence	Gene ID	Gene Description
5 5	7928899 rs1438739	intronic	<i>THBS4</i>	Thrombospondin-4
2 8	1.07E+0 rs1006472	intergenic	<i>CD8B2;ST6GAL2</i>	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
2 8	1.07E+0 rs898456	intergenic	<i>CD8B2;ST6GAL2</i>	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
2 8	1.07E+0 rs2377685	intergenic	<i>CD8B2;ST6GAL2</i>	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
2 8	1.07E+0 rs5833209	intergenic	<i>CD8B2;ST6GAL2</i>	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
20 5	4477156 rs11696696	intergenic	<i>CD40;CDH22</i>	Tumor necrosis factor receptor superfamily member 5; Cadherin-22
20 6	4476966 rs6074037	intergenic	<i>CD40;CDH22</i>	Tumor necrosis factor receptor superfamily member 5; Cadherin-22
11 6	3521312 rs7934770	intronic	<i>CD44</i>	CD44 antigen
3 8	1.12E+0 rs2633610	intergenic	<i>CD200;BTLA</i>	OX-2 membrane glycoprotein; B- and T-lymphocyte attenuator
4 4	1587410 rs2531166	intergenic	<i>CD38;FGFBP1</i>	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1; Fibroblast growth factor-binding protein 1
20 8	4479612 rs2425759	intergenic	<i>CD40;CDH22</i>	Tumor necrosis factor receptor superfamily member 5; Cadherin-22
2 8	1.07E+0 rs56018727	intergenic	<i>CD8B2;ST6GAL2</i>	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
1 8	2.08E+0 rs2184820	intergenic	<i>CD34;PLXNA2</i>	Hematopoietic progenitor cell antigen CD34; Plexin-A2
20 5	4480044 rs2425764	intergenic	<i>CD40;CDH22</i>	Tumor necrosis factor receptor superfamily member 5; Cadherin-22
5 9	7929289 rs7707036	intronic	<i>THBS4</i>	Thrombospondin-4
17 1	7253690 rs4788845	downstream	<i>CD300C</i>	CMRF35-like molecule 6
2 8	1.07E+0 rs74879177	intergenic	<i>CD8B2;ST6GAL2</i>	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
3 8	1.12E+0 rs2633611	intergenic	<i>CD200;BTLA</i>	OX-2 membrane glycoprotein; B- and T-lymphocyte attenuator
11 8	3521079 rs996076	intronic	<i>CD44</i>	CD44 antigen
11 8	4465416 rs7113690	intergenic	<i>CD82;TSPAN18</i>	CD82 antigen; Tetraspanin-18
2 8	1.07E+0 rs6721068	intergenic	<i>CD8B2;ST6GAL2</i>	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
17 0	7264989 rs35729709	intergenic	<i>CD300E;RAB37</i>	CMRF35-like molecule 2; Ras-related protein Rab-37
1 8	2.08E+0 rs12095775	intergenic	<i>CD34;PLXNA2</i>	Hematopoietic progenitor cell antigen CD34; Plexin-A2
17 9	7253240 rs4789074	intergenic	<i>CD300LB;CD300C</i>	CMRF35-like molecule 7; CMRF35-like molecule 6
2 8	1.07E+0 rs2241992	intergenic	<i>CD8B2;ST6GAL2</i>	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
2 8	1.07E+0 rs1448118	intergenic	<i>CD8B2;ST6GAL2</i>	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2

CH R	Locatio n	SNP	Consequence	Gene ID	Gene Description
5	6675282 9	rs1274868	intergenic	CD180;LINC0224 2	CD180 antigen; Long Intergenic Non-Protein Coding RNA 2242
11	4465438 5	rs7113954	intergenic	CD82;TSPAN18	CD82 antigen; Tetraspanin-18
2	1.07E+0 8	rs4381779	intergenic	CD8B2;ST6GAL2	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
1	2.08E+0 8	rs6666666	intergenic	CD34;PLXNA2	Hematopoietic progenitor cell antigen CD34; Plexin-A2
3	1.12E+0 8	rs2633568	intergenic	CD200;BTLA	OX-2 membrane glycoprotein; B- and T-lymphocyte attenuator
20	2306025 7	rs7492	UTR3	CD93	Complement component C1q receptor
3	1.12E+0 8	rs721363	intergenic	CD200;BTLA	OX-2 membrane glycoprotein; B- and T-lymphocyte attenuator
6	1418777 6	rs9370732	intergenic	CD83;LINC01108	CD83 antigen; Long Intergenic Non-Protein Coding RNA 1108
1	1.68E+0 8	rs19958281 1	intergenic	CD247;CREG1	T-cell surface glycoprotein CD3 zeta chain; Protein CREG1
11	4464980 2	rs11820438	intergenic	CD82;TSPAN18	CD82 antigen; Tetraspanin-18
6	1.7E+08	rs6605523	intergenic	THBS2;WDR27	Thrombospondin-2; WD repeat-containing protein 27
1	2.08E+0 8	rs3754171	intergenic	CD34;PLXNA2	Hematopoietic progenitor cell antigen CD34; Plexin-A2
1	2.08E+0 8	rs3754172	intergenic	CD34;PLXNA2	Hematopoietic progenitor cell antigen CD34; Plexin-A2
1	2.08E+0 8	rs2267894	intergenic	CD34;PLXNA2	Hematopoietic progenitor cell antigen CD34; Plexin-A2
2	1.07E+0 8	rs1006413	intergenic	CD8B2;ST6GAL2	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
11	6609361 2	rs1892938	intergenic	CD248;RIN1	Endosialin; Ras and Rab interactor 1
2	1.07E+0 8	rs1551718	intergenic	CD8B2;ST6GAL2	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
1	1.11E+0 8	rs7521468	intergenic	CD53;LRIF1	Leukocyte surface antigen CD53; Ligand-dependent nuclear receptor-interacting factor 1
2	1.07E+0 8	rs12473520	intergenic	CD8B2;ST6GAL2	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
1	1.11E+0 8	rs1936942	intergenic	CD53;LRIF1	Leukocyte surface antigen CD53; Ligand-dependent nuclear receptor-interacting factor 1
17	7253307 6	rs11652446	intergenic	CD300LB;CD300 C	CMRF35-like molecule 7; CMRF35-like molecule 6
17	7252322 4	rs10512596	intronic	CD300LB	CMRF35-like molecule 7
4	1590969 0	rs13103381	intergenic	CD38;FGFBP1	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1; Fibroblast growth factor-binding protein 1
4	1591038 5	rs2532070	intergenic	CD38;FGFBP1	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1; Fibroblast growth factor-binding protein 1
15	7398773 0	rs80307614	intronic	CD276	CD276 antigen
3	1.12E+0 8	rs2705545	intergenic	CD200;BTLA	OX-2 membrane glycoprotein; B- and T-lymphocyte attenuator
2	1.07E+0 8	rs4487086	intergenic	CD8B2;ST6GAL2	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
20	2305748 2	rs1998081	intergenic	THBD;CD93	Thrombomodulin; Complement component C1q receptor
20	2304873 3	rs2424515	intergenic	THBD;CD93	Thrombomodulin; Complement component C1q receptor
11	3375240 3	rs1738548	intronic	CD59	CD59 glycoprotein

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1	1.11E+08	rs1282023	intergenic	CD53;LRIF1	Leukocyte surface antigen CD53; Ligand-dependent nuclear receptor-interacting factor 1
1	1.11E+08	rs12077952	intergenic	CD53;LRIF1	Leukocyte surface antigen CD53; Ligand-dependent nuclear receptor-interacting factor 1
2	1.07E+08	rs4676262	intergenic	CD8B2;ST6GAL2	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
1	1.11E+08	rs11102175	intronic	CD53	Leukocyte surface antigen CD53
1	2.08E+08	rs76643201	intergenic	CD34;PLXNA2	Hematopoietic progenitor cell antigen CD34; Plexin-A2
20	23062927	rs2749812	UTR3	CD93	Complement component C1q receptor
3	1.12E+08	rs11708711	intergenic	CD200;BTLA	OX-2 membrane glycoprotein; B- and T-lymphocyte attenuator
11	44639551	rs9971373	intronic	CD82	CD82 antigen
2	1.07E+08	rs12712257	intergenic	CD8B2;ST6GAL2	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
2	1.07E+08	rs7589737	intergenic	CD8B2;ST6GAL2	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
1	27707859	rs17162558	intronic	CD164L2	CD164 molecule like 2
17	72691263	rs34303409	exonic	CD300LF	CMRF35-like molecule 1
2	1.07E+08	rs10514794	intergenic	CD8B2;ST6GAL2	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
12	6560573	rs1059501	ncRNA_exonic	CD27-AS1	CD27 Antisense RNA 1
3	1.12E+08	rs721361	intergenic	CD200;BTLA	OX-2 membrane glycoprotein; B- and T-lymphocyte attenuator
1	27705565	rs2474287	downstream	CD164L2	CD164 molecule like 2
17	72537245	rs11653281	UTR3	CD300C	CMRF35-like molecule 6
3	1.12E+08	rs13097590	intergenic	CD200;BTLA	OX-2 membrane glycoprotein; B- and T-lymphocyte attenuator
11	35238459	rs1547059	intronic	CD44	CD44 antigen
11	35223945	rs713330	intronic	CD44	CD44 antigen
11	35217745	rs10836340	intronic	CD44	CD44 antigen
11	35226155	rs9666607	exonic	CD44	CD44 antigen
20	44757213	rs3765457	intronic	CD40	Tumor necrosis factor receptor superfamily member 5
5	79295243	rs12054697	intronic	THBS4	Thrombospondin-4
1	1.11E+08	rs3790722	intronic	CD53	Leukocyte surface antigen CD53
1	1.67E+08	rs1003815	intergenic	CD247;CREG1	T-cell surface glycoprotein CD3 zeta chain; Protein CREG1
19	51752217	rs12971800	intergenic	CD33;SIGLECL1	Myeloid cell surface antigen CD33; SIGLEC family-like protein 1
18	67568836	rs1788110	intronic	CD226	CD226 antigen
19	51727962	rs3865444	upstream	CD33	Myeloid cell surface antigen CD33
11	44590729	rs10769059	intronic	CD82	CD82 antigen

CH R n	Locatio n	SNP	Consequence	Gene ID	Gene Description
11	4465215 4	rs10769062	intergenic	<i>CD82;TSPAN18</i>	CD82 antigen; Tetraspanin-18
5	6669436 0	rs1812472	intergenic	<i>CD180;LINC0224 2</i>	CD180 antigen; Long Intergenic Non-Protein Coding RNA 2242
5	6671414 1	rs186460	intergenic	<i>CD180;LINC0224 2</i>	CD180 antigen; Long Intergenic Non-Protein Coding RNA 2242
5	6670509 7	rs317976	intergenic	<i>CD180;LINC0224 2</i>	CD180 antigen; Long Intergenic Non-Protein Coding RNA 2242
11	4461581 5	rs12576112	intronic	<i>CD82</i>	CD82 antigen
11	4459681 7	rs17541041	intronic	<i>CD82</i>	CD82 antigen
4	1578459 8	rs3756243	intronic	<i>CD38</i>	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1
1	2.08E+0 8	rs2490255	intergenic	<i>CD55;CR2</i>	Complement decay-accelerating factor; Complement receptor type 2
19	6609480	rs73922419	intergenic	<i>CD70;TNFSF14</i>	CD70 antigen; Tumor necrosis factor ligand superfamily member 14
11	3521086 6	rs996075	intronic	<i>CD44</i>	CD44 antigen
4	1590680 4	rs12513168	intergenic	<i>CD38;FGFBP1</i>	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1; Fibroblast growth factor-binding protein 1
4	1590713 3	rs11944611	intergenic	<i>CD38;FGFBP1</i>	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1; Fibroblast growth factor-binding protein 1
18	6756589 8	rs1788112	intronic	<i>CD226</i>	CD226 antigen
2	1.07E+0 8	rs7599975	intergenic	<i>CD8B2;ST6GAL2</i>	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
4	1581839 1	rs3796868	intronic	<i>CD38</i>	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1
2	1.07E+0 8	rs17220280	intergenic	<i>CD8B2;ST6GAL2</i>	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
11	4469147 9	rs7935663	intergenic	<i>CD82;TSPAN18</i>	CD82 antigen; Tetraspanin-18
11	4465750 0	rs12420889	intergenic	<i>CD82;TSPAN18</i>	CD82 antigen; Tetraspanin-18
20	4478462 2	rs6032681	intergenic	<i>CD40;CDH22</i>	Tumor necrosis factor receptor superfamily member 5; Cadherin-22
11	4464923 1	rs4755854	intergenic	<i>CD82;TSPAN18</i>	CD82 antigen; Tetraspanin-18
12	6557674	rs2253610	ncRNA_intron ic	<i>CD27-AS1</i>	CD27 Antisense RNA 1
11	4464552 5	rs11038084	intergenic	<i>CD82;TSPAN18</i>	CD82 antigen; Tetraspanin-18
3	1.12E+0 8	rs13090873	intergenic	<i>CD200;BTLA</i>	OX-2 membrane glycoprotein; B- and T-lymphocyte attenuator
11	3524457 4	rs11607862	UTR3	<i>CD44</i>	CD44 antigen
20	4475588 9	rs11569333	intronic	<i>CD40</i>	Tumor necrosis factor receptor superfamily member 5
11	3524266 0	rs2065004	intronic	<i>CD44</i>	CD44 antigen
2	1.07E+0 8	rs6543438	intergenic	<i>CD8B2;ST6GAL2</i>	T-Cell Surface Glycoprotein CD8 Beta-2 Chain ; Beta-galactoside alpha-2,6-sialyltransferase 2
4	1585472 5	rs3733593	UTR3	<i>CD38</i>	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1
4	1585679 9	rs13136270	intergenic	<i>CD38;FGFBP1</i>	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1; Fibroblast growth factor-binding protein 1
11	4459642 8	rs11717025 9	intronic	<i>CD82</i>	CD82 antigen

CH R n	Locatio n	SNP	Consequence	Gene ID	Gene Description
20	4476320 1	rs62215622	intergenic	CD40;CDH22	Tumor necrosis factor receptor superfamily member 5; Cadherin-22
6	1.7E+08	rs1028296	intergenic	THBS2;WDR27	Thrombospondin-2; WD repeat-containing protein 27
11	3375302 1	rs2231454	intronic	CD59	CD59 glycoprotein
19	6654011	rs13343619	intergenic	CD70;TNFSF14	CD70 antigen; Tumor necrosis factor ligand superfamily member 14
3	1.12E+0 8	rs13091125	intergenic	CD200;BTLA	OX-2 membrane glycoprotein; B- and T-lymphocyte attenuator
11	4468857 7	rs10838327	intergenic	CD82;TSPAN18	CD82 antigen; Tetraspanin-18

The selected SNPs are from the optimized tag SNP content with 1000 Genomes Project pilot data. SNP; Single nucleotide polymorphism; CHR, chromosome.

Table S2. The significant SNPs of THBS-CD family genes genotyped in hypertensive and normotensive highlanders.

CHR	Location	SNP	OR	P value	Consequence	Gene information
5	79288995	rs1438739	0.3944	0.001044	intronic	THBS4
2	1.07E+08	rs1006472	1.994	0.002112	intergenic	CD8B2;ST6GAL2
2	1.07E+08	rs898456	1.994	0.002112	intergenic	CD8B2;ST6GAL2
2	1.07E+08	rs2377685	1.994	0.002112	intergenic	CD8B2;ST6GAL2
2	1.07E+08	rs5833209	1.994	0.002112	intergenic	CD8B2;ST6GAL2
20	44771565	rs11696696	0.503	0.00228	intergenic	CD40;CDH22
20	44769666	rs6074037	0.556	0.003193	intergenic	CD40;CDH22
11	35213126	rs7934770	0.5908	0.003592	intronic	CD44
3	1.12E+08	rs2633610	0.6923	0.003829	intergenic	CD200;BTLA
4	15874104	rs2531166	0.6342	0.0052	intergenic	CD38;FGFBP1
20	44796128	rs2425759	0.3444	0.005945	intergenic	CD40;CDH22
2	1.07E+08	rs56018727	0.3362	0.006136	intergenic	CD8B2;ST6GAL2
1	2.08E+08	rs2184820	0.5199	0.006937	intergenic	CD34;PLXNA2
20	44800445	rs2425764	0.3968	0.007091	intergenic	CD40;CDH22
5	79292899	rs7707036	0.54	0.007375	intronic	THBS4
17	72536901	rs4788845	2.009	0.00819	downstream	CD300C
2	1.07E+08	rs74879177	0.236	0.008406	intergenic	CD8B2;ST6GAL2
3	1.12E+08	rs2633611	0.7088	0.009061	intergenic	CD200;BTLA
11	35210798	rs996076	0.6663	0.009102	intronic	CD44
11	44654168	rs7113690	0.5571	0.009289	intergenic	CD82;TSPAN18
2	1.07E+08	rs6721068	0.5386	0.0101	intergenic	CD8B2;ST6GAL2
17	72649890	rs35729709	0.6708	0.01067	intergenic	CD300E;RAB37
1	2.08E+08	rs12095775	0.4381	0.01134	intergenic	CD34;PLXNA2
17	72532409	rs4789074	2.281	0.01135	intergenic	CD300LB;CD300C
2	1.07E+08	rs2241992	0.5405	0.01159	intergenic	CD8B2;ST6GAL2
2	1.07E+08	rs1448118	1.814	0.01231	intergenic	CD8B2;ST6GAL2
5	66752829	rs1274868	0.1451	0.01238	intergenic	CD180;LINC02242
11	44654385	rs7113954	0.5636	0.01273	intergenic	CD82;TSPAN18
2	1.07E+08	rs4381779	0.4181	0.01286	intergenic	CD8B2;ST6GAL2

CHR	Location	SNP	OR	P value	Consequence	Gene information
1	2.08E+08	rs6666666	0.4456	0.01326	intergenic	<i>CD34;PLXNA2</i>
3	1.12E+08	rs2633568	0.7703	0.01384	intergenic	<i>CD200;BTLA</i>
20	23060257	rs7492	4.37	0.01391	UTR3	<i>CD93</i>
3	1.12E+08	rs721363	0.727	0.01435	intergenic	<i>CD200;BTLA</i>
6	14187776	rs9370732	3.131	0.01524	intergenic	<i>CD83;LINC01108</i>
1	1.68E+08	rs199582811	0.6481	0.01573	intergenic	<i>CD247;CREG1</i>
11	44649802	rs11820438	1.645	0.01582	intergenic	<i>CD82;TSPAN18</i>
6	1.7E+08	rs6605523	2.183	0.01599	intergenic	<i>THBS2;WDR27</i>
1	2.08E+08	rs3754171	0.4786	0.01647	intergenic	<i>CD34;PLXNA2</i>
1	2.08E+08	rs3754172	0.4786	0.01647	intergenic	<i>CD34;PLXNA2</i>
1	2.08E+08	rs2267894	0.4786	0.01647	intergenic	<i>CD34;PLXNA2</i>
2	1.07E+08	rs1006413	1.76	0.01713	intergenic	<i>CD8B2;ST6GAL2</i>
11	66093612	rs1892938	0.616	0.01771	intergenic	<i>CD248;RIN1</i>
2	1.07E+08	rs1551718	1.654	0.01777	intergenic	<i>CD8B2;ST6GAL2</i>
1	1.11E+08	rs7521468	1.352	0.01822	intergenic	<i>CD53;LRIF1</i>
2	1.07E+08	rs12473520	1.767	0.01869	intergenic	<i>CD8B2;ST6GAL2</i>
1	1.11E+08	rs1936942	1.256	0.01905	intergenic	<i>CD53;LRIF1</i>
17	72533076	rs11652446	2.058	0.01908	intergenic	<i>CD300LB;CD300C</i>
17	72523224	rs10512596	2.058	0.01908	intronic	<i>CD300LB</i>
4	15909690	rs13103381	1.476	0.02006	intergenic	<i>CD38;FGFBP1</i>
4	15910385	rs2532070	1.476	0.02006	intergenic	<i>CD38;FGFBP1</i>
15	73987730	rs80307614	2.079	0.02022	intronic	<i>CD276</i>
3	1.12E+08	rs2705545	0.7871	0.02091	intergenic	<i>CD200;BTLA</i>
2	1.07E+08	rs4487086	0.5877	0.02121	intergenic	<i>CD8B2;ST6GAL2</i>
20	23057482	rs1998081	5	0.02179	intergenic	<i>THBD;CD93</i>
20	23048733	rs2424515	5	0.02179	intergenic	<i>THBD;CD93</i>
11	33752403	rs1738548	1.526	0.0221	intronic	<i>CD59</i>
1	1.11E+08	rs1282023	1.219	0.02227	intergenic	<i>CD53;LRIF1</i>
1	1.11E+08	rs12077952	1.219	0.02227	intergenic	<i>CD53;LRIF1</i>
2	1.07E+08	rs4676262	1.745	0.02309	intergenic	<i>CD8B2;ST6GAL2</i>
1	1.11E+08	rs11102175	0.6748	0.02405	intronic	<i>CD53</i>
1	2.08E+08	rs76643201	0.4643	0.02458	intergenic	<i>CD34;PLXNA2</i>
20	23062927	rs2749812	3.47	0.02523	UTR3	<i>CD93</i>
3	1.12E+08	rs11708711	0.6937	0.02598	intergenic	<i>CD200;BTLA</i>
11	44639551	rs9971373	3.722	0.02768	intronic	<i>CD82</i>
2	1.07E+08	rs12712257	0.6327	0.02773	intergenic	<i>CD8B2;ST6GAL2</i>
2	1.07E+08	rs7589737	1.615	0.02874	intergenic	<i>CD8B2;ST6GAL2</i>
1	27707859	rs17162558	2.159	0.03042	intronic	<i>CD164L2</i>
17	72691263	rs34303409	0.3857	0.03055	exonic	<i>CD300LF</i>
2	1.07E+08	rs10514794	0.6092	0.03099	intergenic	<i>CD8B2;ST6GAL2</i>

CHR	Location	SNP	OR	P value	Consequence	Gene information
12	6560573	rs1059501	0.6385	0.03108	ncRNA_exonic	CD27-AS1
3	1.12E+08	rs721361	0.8095	0.03151	intergenic	CD200;BTLA
1	27705565	rs2474287	1.798	0.03182	downstream	CD164L2
17	72537245	rs11653281	1.879	0.03262	UTR3	CD300C
3	1.12E+08	rs13097590	0.7493	0.03284	intergenic	CD200;BTLA
11	35238459	rs1547059	0.3665	0.03288	intronic	CD44
11	35223945	rs713330	0.68	0.03315	intronic	CD44
11	35217745	rs10836340	0.68	0.03315	intronic	CD44
11	35226155	rs9666607	0.68	0.03315	exonic	CD44
20	44757213	rs3765457	0.1937	0.03329	intronic	CD40
5	79295243	rs12054697	0.7057	0.03411	intronic	THBS4
1	1.11E+08	rs3790722	0.7031	0.03495	intronic	CD53
1	1.67E+08	rs1003815	0.4156	0.035	intergenic	CD247;CREG1
19	51752217	rs12971800	1.545	0.03512	intergenic	CD33;SIGLECL1
18	67568836	rs1788110	0.5971	0.03535	intronic	CD226
19	51727962	rs3865444	1.536	0.03536	upstream	CD33
11	44590729	rs10769059	1.771	0.03561	intronic	CD82
11	44652154	rs10769062	1.508	0.03615	intergenic	CD82;TSPAN18
5	66694360	rs1812472	0.3438	0.03639	intergenic	CD180;LINC02242
5	66714141	rs186460	0.3438	0.03639	intergenic	CD180;LINC02242
5	66705097	rs317976	0.3438	0.03639	intergenic	CD180;LINC02242
11	44615815	rs12576112	3.87	0.03717	intronic	CD82
11	44596817	rs17541041	3.87	0.03717	intronic	CD82
4	15784598	rs3756243	0.5655	0.03761	intronic	CD38
1	2.08E+08	rs2490255	1.513	0.03769	intergenic	CD55;CR2
19	6609480	rs73922419	2.87	0.03824	intergenic	CD70;TNFSF14
11	35210866	rs996075	0.7838	0.03923	intronic	CD44
4	15906804	rs12513168	1.332	0.03931	intergenic	CD38;FGFBP1
4	15907133	rs11944611	1.332	0.03931	intergenic	CD38;FGFBP1
18	67565898	rs1788112	0.4741	0.03931	intronic	CD226
2	1.07E+08	rs7599975	0.6545	0.03963	intergenic	CD8B2;ST6GAL2
4	15818391	rs3796868	1.879	0.04017	intronic	CD38
2	1.07E+08	rs17220280	0.42	0.04024	intergenic	CD8B2;ST6GAL2
11	44691479	rs7935663	0.5455	0.04054	intergenic	CD82;TSPAN18
11	44657500	rs12420889	0.625	0.04084	intergenic	CD82;TSPAN18
20	44784622	rs6032681	0.6839	0.04103	intergenic	CD40;CDH22
11	44649231	rs4755854	1.604	0.04134	intergenic	CD82;TSPAN18
12	6557674	rs2253610	1.656	0.04199	ncRNA_intronic	CD27-AS1
11	44645525	rs11038084	2.421	0.04211	intergenic	CD82;TSPAN18
3	1.12E+08	rs13090873	0.7493	0.04286	intergenic	CD200;BTLA

CHR	Location	SNP	OR	P value	Consequence	Gene information
11	35244574	rs11607862	1.656	0.04301	UTR3	CD44
20	44755889	rs11569333	0.2092	0.04367	intronic	CD40
11	35242660	rs2065004	0.4063	0.04371	intronic	CD44
2	1.07E+08	rs6543438	4.459	0.04441	intergenic	CD8B2;ST6GAL2
4	15854725	rs3733593	1.62	0.04471	UTR3	CD38
4	15856799	rs13136270	1.62	0.04471	intergenic	CD38;FGFBP1
11	44596428	rs117170259	3.29	0.04581	intronic	CD82
20	44763201	rs62215622	0.5234	0.04615	intergenic	CD40;CDH22
6	1.7E+08	rs1028296	2.782	0.04678	intergenic	THBS2;WDR27
11	33753021	rs2231454	0.3877	0.0472	intronic	CD59
19	6654011	rs13343619	0.4421	0.04789	intergenic	CD70;TNFSF14
3	1.12E+08	rs13091125	0.7289	0.04812	intergenic	CD200;BTLA
11	44688577	rs10838327	0.5619	0.04849	intergenic	CD82;TSPAN18

The SNPs were genotyped using Fluidigm 48.48 SNPtype assay in 69 normotensive highlanders (NHLs) and 65 hypertensive highlanders (HHLs). *PLINK v1.07 tool was used to perform logistic regression analysis under a log-additive model. Significance of the SNPs was maintained at P < 0.05.* SNP; Single nucleotide polymorphism; CHR, chromosome; OR, Odds ratio at 95% confidence interval.

Table S3. Significant SNP-SNP interactions of THBS-CD family genes identified between the controls and patients of Cohort 2.

CHR1	rsID	Gene ID	CHR2	rsID	Gene ID	OR	P
1	rs2474287	CD164L2	4	rs2531166	CD38;FGFBP1	3.287	0.02815
			4	rs12513168	CD38;FGFBP1	0.3345	0.01518
			4	rs11944611	CD38;FGFBP1	0.3345	0.01518
			4	rs13103381	CD38;FGFBP1	0.4081	0.04971
			4	rs2532070	CD38;FGFBP1	0.4081	0.04971
			11	rs1738548	CD59	3.833	0.0401
			12	rs1059501	CD27-AS1	3.679	0.01495
			18	rs1788112	CD226	0.2408	0.04339
1	rs3790722	CD53	19	rs3865444	CD33	0.3692	0.01944
1	rs11102175	CD53	11	rs7113690	CD82;TSPAN18	0.3099	0.03082
			11	rs7113954	CD82;TSPAN18	0.313	0.0322
			19	rs3865444	CD33	0.3886	0.02588
			19	rs12971800	CD33;SIGLECL1	4.664	0.03756
1	rs199582811	CD247;CREG1	2	rs12712257	CD8B2;ST6GAL2	0.3481	0.03804
			2	rs1006472	CD8B2;ST6GAL2	3.883	0.0143
			2	rs7599975	CD8B2;ST6GAL2	0.2859	0.01959
			2	rs898456	CD8B2;ST6GAL2	3.736	0.01682
			2	rs1551718	CD8B2;ST6GAL2	2.977	0.03448
			2	rs6721068	CD8B2;ST6GAL2	0.3398	0.04706
			2	rs2377685	CD8B2;ST6GAL2	3.736	0.01682
			2	rs5833209	CD8B2;ST6GAL2	3.736	0.01682

CHR1	rsID	Gene ID	CHR2	rsID	Gene ID	OR	P
			2	rs2241992	CD8B2;ST6GAL2	0.284	0.02987
			11	rs12420889	CD82;TSPAN18	0.2068	0.01445
1	rs2490255	CD55;CR2	1	rs12095775	CD34;PLXNA2	3.447	0.04302
			1	rs6666666	CD34;PLXNA2	3.448	0.04299
			3	rs11708711	CD200;BTLA	0.4427	0.03064
			11	rs11820438	CD82;TSPAN18	0.4042	0.0227
1	rs2267894	CD34;PLXNA2	11	rs11820438	CD82;TSPAN18	3.963	0.03231
			11	rs7113690	CD82;TSPAN18	0.1667	0.01978
			11	rs7113954	CD82;TSPAN18	0.1618	0.01801
			11	rs12420889	CD82;TSPAN18	0.2033	0.0438
1	rs3754172	CD34;PLXNA2	11	rs11820438	CD82;TSPAN18	3.963	0.03231
			11	rs7113690	CD82;TSPAN18	0.1667	0.01978
			11	rs7113954	CD82;TSPAN18	0.1618	0.01801
			11	rs12420889	CD82;TSPAN18	0.2033	0.0438
1	rs3754171	CD34;PLXNA2	11	rs11820438	CD82;TSPAN18	3.963	0.03231
			11	rs7113690	CD82;TSPAN18	0.1667	0.01978
			11	rs7113954	CD82;TSPAN18	0.1618	0.01801
			11	rs12420889	CD82;TSPAN18	0.2033	0.0438
1	rs12095775	CD34;PLXNA2	11	rs7113690	CD82;TSPAN18	0.186	0.02814
			11	rs7113954	CD82;TSPAN18	0.1808	0.0258
1	rs6666666	CD34;PLXNA2	11	rs11820438	CD82;TSPAN18	3.649	0.04904
			11	rs7113690	CD82;TSPAN18	0.1811	0.02588
			11	rs7113954	CD82;TSPAN18	0.1759	0.02366
1	rs2184820	CD34;PLXNA2	11	rs7113690	CD82;TSPAN18	0.2069	0.03519
			11	rs7113954	CD82;TSPAN18	0.1769	0.02415
			17	rs11653281	CD300C	3.467	0.04198
			20	rs2425759	CD40;CDH22	5.742	0.03347
2	rs7589737	CD8B2;ST6GAL2	3	rs721361	CD200;BTLA	0.2591	0.03185
			3	rs721363	CD200;BTLA	0.2471	0.02774
			11	rs996076	CD44	0.2714	0.04675
			11	rs9971373	CD82	0.09355	0.03374
			15	rs80307614	CD276	0.09404	0.02054
2	rs12473520	CD8B2;ST6GAL2	2	rs1006472	CD8B2;ST6GAL2	0.3047	0.03753
			2	rs898456	CD8B2;ST6GAL2	0.3263	0.04692
			2	rs1551718	CD8B2;ST6GAL2	0.294	0.0262
			2	rs4487086	CD8B2;ST6GAL2	3.064	0.04701
			2	rs2377685	CD8B2;ST6GAL2	0.3263	0.04692
			2	rs5833209	CD8B2;ST6GAL2	0.3263	0.04692
			5	rs7707036	THBS4	4.142	0.03309
			11	rs996076	CD44	0.128	0.005033

CHR1	rsID	Gene ID	CHR2	rsID	Gene ID	OR	P
			11	rs996075	CD44	0.2378	0.01367
			11	rs7934770	CD44	0.1663	0.01468
			11	rs9971373	CD82	0.06846	0.03437
			15	rs80307614	CD276	0.124	0.02678
2	rs4676262	CD8B2;ST6GAL2	2	rs12712257	CD8B2;ST6GAL2	3.758	0.009475
			2	rs1006472	CD8B2;ST6GAL2	0.2725	0.008968
			2	rs7599975	CD8B2;ST6GAL2	3.72	0.01042
			2	rs898456	CD8B2;ST6GAL2	0.2829	0.0106
			2	rs1551718	CD8B2;ST6GAL2	0.2231	0.0018
			2	rs4487086	CD8B2;ST6GAL2	3.906	0.008172
			2	rs1448118	CD8B2;ST6GAL2	0.3296	0.01163
			2	rs10514794	CD8B2;ST6GAL2	3.861	0.009054
			2	rs6721068	CD8B2;ST6GAL2	3.748	0.009646
			2	rs2377685	CD8B2;ST6GAL2	0.2829	0.0106
			2	rs5833209	CD8B2;ST6GAL2	0.2829	0.0106
			2	rs2241992	CD8B2;ST6GAL2	4.002	0.007457
			2	rs1006413	CD8B2;ST6GAL2	0.3274	0.01195
			3	rs13091125	CD200;BT LA	0.3766	0.04963
			3	rs2633610	CD200;BT LA	0.3744	0.04728
			3	rs13090873	CD200;BT LA	0.3375	0.04782
			3	rs2633611	CD200;BT LA	0.3628	0.04058
			3	rs2705545	CD200;BT LA	0.3291	0.02335
			3	rs2633568	CD200;BT LA	0.3666	0.03855
			3	rs721361	CD200;BT LA	0.284	0.01635
			3	rs721363	CD200;BT LA	0.3118	0.0273
			4	rs3796868	CD38	4.731	0.02578
2	rs4381779	CD8B2;ST6GAL2	3	rs2633610	CD200;BT LA	0.152	0.011
			3	rs2633611	CD200;BT LA	0.1985	0.0202
			3	rs2705545	CD200;BT LA	0.2694	0.04813
			3	rs2633568	CD200;BT LA	0.223	0.02963
			3	rs721361	CD200;BT LA	0.2533	0.04018
			3	rs721363	CD200;BT LA	0.1884	0.01718
			4	rs3796868	CD38	6.058	0.0177
			5	rs1274868	CD180;LINC02242	34.98	0.03314
			11	rs2231454	CD59	13.6	0.008729
			11	rs1547059	CD44	33.49	0.009887
2	rs56018727	CD8B2;ST6GAL2	11	rs2065004	CD44	29.08	0.01361
			3	rs2633610	CD200;BT LA	0.2382	0.0495
			4	rs3796868	CD38	5.157	0.0382
			5	rs1274868	CD180;LINC02242	40.6	0.02706

CHR1	rsID	Gene ID	CHR2	rsID	Gene ID	OR	P
			11	rs1738548	CD59	0.2226	0.04996
			11	rs2231454	CD59	9.02	0.01826
			11	rs11038084	CD82;TSPAN18	13.06	0.03974
			19	rs3865444	CD33	0.2453	0.03636
2	rs74879177	CD8B2;ST6GAL2	5	rs1274868	CD180;LINC02242	47.75	0.02225
			11	rs2231454	CD59	6.376	0.04964
			11	rs1547059	CD44	26.45	0.02531
			11	rs2065004	CD44	23.51	0.03139
2	rs12712257	CD8B2;ST6GAL2	2	rs17220280	CD8B2;ST6GAL2	5.992	0.01518
			2	rs10514794	CD8B2;ST6GAL2	0.4939	0.04892
			2	rs2241992	CD8B2;ST6GAL2	0.4684	0.0398
			6	rs6605523	THBS2;WDR27	2.888	0.02448
			11	rs4755854	CD82;TSPAN18	0.371	0.007612
			11	rs11820438	CD82;TSPAN18	0.4734	0.04489
			11	rs12420889	CD82;TSPAN18	2.546	0.02497
			12	rs2253610	CD27-AS1	2.491	0.01028
			17	rs4788845	CD300C	0.4663	0.04658
			18	rs1788110	CD226	3.053	0.02123
2	rs1006472	CD8B2;ST6GAL2	4	rs3756243	CD38	5.696	0.01186
			6	rs6605523	THBS2;WDR27	0.3125	0.0254
			11	rs4755854	CD82;TSPAN18	2.815	0.009171
			11	rs12420889	CD82;TSPAN18	0.3783	0.02962
			12	rs2253610	CD27-AS1	0.3812	0.01212
			17	rs4788845	CD300C	2.533	0.03011
			18	rs1788110	CD226	0.336	0.02123
2	rs7599975	CD8B2;ST6GAL2	2	rs17220280	CD8B2;ST6GAL2	5.997	0.01541
			6	rs6605523	THBS2;WDR27	2.68	0.03729
			11	rs4755854	CD82;TSPAN18	0.3396	0.004777
			11	rs11820438	CD82;TSPAN18	0.4408	0.03191
			11	rs12420889	CD82;TSPAN18	2.818	0.01621
			12	rs2253610	CD27-AS1	2.564	0.01008
			18	rs1788110	CD226	2.743	0.03818
2	rs898456	CD8B2;ST6GAL2	4	rs3756243	CD38	5.509	0.01347
			6	rs6605523	THBS2;WDR27	0.3586	0.03753
			11	rs4755854	CD82;TSPAN18	2.853	0.008626
			11	rs12420889	CD82;TSPAN18	0.3783	0.02962
			12	rs2253610	CD27-AS1	0.3814	0.01246
			17	rs4788845	CD300C	2.356	0.0421
			18	rs1788110	CD226	0.355	0.02659
2	rs17220280	CD8B2;ST6GAL2	5	rs1274868	CD180;LINC02242	37.28	0.03487

CHR1	rsID	Gene ID	CHR2	rsID	Gene ID	OR	P
2	rs1551718	CD8B2;ST6GAL2	4	rs3756243	CD38	6.356	0.008016
			6	rs6605523	THBS2;WDR27	0.3175	0.01813
			11	rs4755854	CD82;TSPAN18	2.433	0.0235
			11	rs11820438	CD82;TSPAN18	2.186	0.04912
			12	rs2253610	CD27-AS1	0.2945	0.002879
			18	rs1788110	CD226	0.3515	0.02615
2	rs4487086	CD8B2;ST6GAL2	2	rs2241992	CD8B2;ST6GAL2	0.468	0.04097
			6	rs6605523	THBS2;WDR27	2.628	0.04828
			11	rs4755854	CD82;TSPAN18	0.3503	0.006748
			11	rs11820438	CD82;TSPAN18	0.4717	0.04905
			11	rs12420889	CD82;TSPAN18	2.446	0.03519
			12	rs2253610	CD27-AS1	2.651	0.00918
			17	rs4788845	CD300C	0.3817	0.02071
			17	rs35729709	CD300E;RAB37	2.444	0.04041
			18	rs1788110	CD226	3.489	0.01282
2	rs1448118	CD8B2;ST6GAL2	4	rs2531166	CD38;FGFBP1	2.133	0.04624
			6	rs6605523	THBS2;WDR27	0.3677	0.02986
			12	rs2253610	CD27-AS1	0.2963	0.0018
			17	rs4788845	CD300C	2.258	0.03822
			18	rs1788110	CD226	0.3289	0.01553
2	rs10514794	CD8B2;ST6GAL2	2	rs2241992	CD8B2;ST6GAL2	0.4743	0.04375
			11	rs4755854	CD82;TSPAN18	0.3203	0.004308
			11	rs11820438	CD82;TSPAN18	0.4391	0.03543
			11	rs12420889	CD82;TSPAN18	2.714	0.02289
			12	rs2253610	CD27-AS1	2.743	0.00888
			17	rs4788845	CD300C	0.4097	0.03155
			17	rs35729709	CD300E;RAB37	2.449	0.04166
			18	rs1788110	CD226	3.106	0.02443
2	rs6721068	CD8B2;ST6GAL2	2	rs2241992	CD8B2;ST6GAL2	0.48	0.04525
			6	rs6605523	THBS2;WDR27	2.967	0.02736
			6	rs1028296	THBS2;WDR27	3.495	0.0496
			11	rs4755854	CD82;TSPAN18	0.3655	0.0099
			11	rs12420889	CD82;TSPAN18	2.403	0.03936
			12	rs2253610	CD27-AS1	2.672	0.008569
			17	rs4788845	CD300C	0.4082	0.03354
			17	rs35729709	CD300E;RAB37	2.512	0.03619
			18	rs1788110	CD226	3.377	0.01571
2	rs2377685	CD8B2;ST6GAL2	4	rs3756243	CD38	5.509	0.01347
			6	rs6605523	THBS2;WDR27	0.3586	0.03753
			11	rs4755854	CD82;TSPAN18	2.853	0.008626

CHR1	rsID	Gene ID	CHR2	rsID	Gene ID	OR	P
			11	rs12420889	<i>CD82;TSPAN18</i>	0.3783	0.02962
			12	rs2253610	<i>CD27-AS1</i>	0.3814	0.01246
			17	rs4788845	<i>CD300C</i>	2.356	0.0421
			18	rs1788110	<i>CD226</i>	0.355	0.02659
2	rs5833209	<i>CD8B2;ST6GAL2</i>	4	rs3756243	<i>CD38</i>	5.509	0.01347
			6	rs6605523	<i>THBS2;WDR27</i>	0.3586	0.03753
			11	rs4755854	<i>CD82;TSPAN18</i>	2.853	0.008626
			11	rs12420889	<i>CD82;TSPAN18</i>	0.3783	0.02962
			12	rs2253610	<i>CD27-AS1</i>	0.3814	0.01246
			17	rs4788845	<i>CD300C</i>	2.356	0.0421
			18	rs1788110	<i>CD226</i>	0.355	0.02659
			6	rs6605523	<i>THBS2;WDR27</i>	2.97	0.02968
2	rs2241992	<i>CD8B2;ST6GAL2</i>	6	rs1028296	<i>THBS2;WDR27</i>	3.668	0.04276
			11	rs4755854	<i>CD82;TSPAN18</i>	0.3558	0.01009
			11	rs12420889	<i>CD82;TSPAN18</i>	2.577	0.03174
			12	rs2253610	<i>CD27-AS1</i>	2.652	0.01258
			17	rs4788845	<i>CD300C</i>	0.424	0.04447
			18	rs1788110	<i>CD226</i>	3.317	0.02031
			6	rs6605523	<i>THBS2;WDR27</i>	0.3923	0.04541
			11	rs4755854	<i>CD82;TSPAN18</i>	2.126	0.04392
2	rs1006413	<i>CD8B2;ST6GAL2</i>	11	rs11820438	<i>CD82;TSPAN18</i>	2.217	0.04217
			12	rs2253610	<i>CD27-AS1</i>	0.2726	0.001626
			18	rs1788110	<i>CD226</i>	0.3568	0.0262
			3	rs2633610	<i>CD200;BTLA</i>	0.3815	0.02335
			3	rs2633611	<i>CD200;BTLA</i>	0.3877	0.02505
3	rs11708711	<i>CD200;BTLA</i>	3	rs2633568	<i>CD200;BTLA</i>	0.423	0.04142
			3	rs721363	<i>CD200;BTLA</i>	0.4182	0.0363
			11	rs10836340	<i>CD44</i>	0.2663	0.03416
			11	rs713330	<i>CD44</i>	0.2663	0.03416
			11	rs9666607	<i>CD44</i>	0.2663	0.03416
			11	rs10769059	<i>CD82</i>	2.428	0.04662
			12	rs2253610	<i>CD27-AS1</i>	2.633	0.01007
			3	rs2633610	<i>CD200;BTLA</i>	0.3778	0.04508
			3	rs2633611	<i>CD200;BTLA</i>	0.3688	0.03999
3	rs13097590	<i>CD200;BTLA</i>	3	rs2705545	<i>CD200;BTLA</i>	0.3718	0.03688
			3	rs2633568	<i>CD200;BTLA</i>	0.3698	0.0357
			3	rs721361	<i>CD200;BTLA</i>	0.3962	0.04568
			12	rs2253610	<i>CD27-AS1</i>	3.025	0.01696
			3	rs721361	<i>CD200;BTLA</i>	0.3669	0.03357
			12	rs2253610	<i>CD27-AS1</i>	3.262	0.00784

CHR1	rsID	Gene ID	CHR2	rsID	Gene ID	OR	P
3	rs2633610	CD200;BTLA	11	rs996076	CD44	0.3712	0.04635
			11	rs10836340	CD44	0.3088	0.04626
			11	rs713330	CD44	0.3088	0.04626
			11	rs9666607	CD44	0.3088	0.04626
			15	rs80307614	CD276	6.871	0.04434
3	rs2633611	CD200;BTLA	15	rs80307614	CD276	6.674	0.04751
3	rs2705545	CD200;BTLA	11	rs1547059	CD44	0.06918	0.04219
3	rs721361	CD200;BTLA	11	rs1547059	CD44	0.06556	0.03859
			11	rs2065004	CD44	0.07228	0.04896
			12	rs2253610	CD27-AS1	2.413	0.03414
3	rs721363	CD200;BTLA	12	rs2253610	CD27-AS1	2.435	0.02966
			15	rs80307614	CD276	6.697	0.04767
4	rs3756243	CD38	6	rs9370732	CD83;LINC01108	0.1178	0.03155
			11	rs11820438	CD82;TSPAN18	3.723	0.02837
			20	rs6074037	CD40;CDH22	2.511	0.0303
			20	rs11696696	CD40;CDH22	3.017	0.0119
4	rs3796868	CD38	5	rs1438739	THBS4	0.2589	0.03973
			6	rs6605523	THBS2;WDR27	5.556	0.04436
			11	rs7935663	CD82;TSPAN18	11.08	0.04032
4	rs3733593	CD38	4	rs12513168	CD38;FGFBP1	0.4172	0.01376
			4	rs11944611	CD38;FGFBP1	0.4172	0.01376
			11	rs996075	CD44	0.4094	0.02633
			12	rs2253610	CD27-AS1	0.4804	0.03845
4	rs13136270	CD38;FGFBP1	4	rs12513168	CD38;FGFBP1	0.4172	0.01376
			4	rs11944611	CD38;FGFBP1	0.4172	0.01376
			11	rs996075	CD44	0.4094	0.02633
			12	rs2253610	CD27-AS1	0.4804	0.03845
4	rs2531166	CD38;FGFBP1	17	rs11653281	CD300C	3.37	0.008434
			19	rs12971800	CD33;SIGLECL1	5.011	0.01832
4	rs13103381	CD38;FGFBP1	17	rs11653281	CD300C	0.4424	0.03195
4	rs2532070	CD38;FGFBP1	17	rs11653281	CD300C	0.4424	0.03195
5	rs1438739	THBS4	11	rs11038084	CD82;TSPAN18	6.338	0.0244
			15	rs80307614	CD276	12.42	0.0417
5	rs7707036	THBS4	11	rs11038084	CD82;TSPAN18	4.291	0.0305
			15	rs80307614	CD276	11.74	0.04524
5	rs12054697	THBS4	20	rs11696696	CD40;CDH22	2.483	0.02072
6	rs9370732	CD83;LINC01108	17	rs35729709	CD300E;RAB37	0.06331	0.02027
11	rs1738548	CD59	11	rs10836340	CD44	5.494	0.009902
			11	rs713330	CD44	5.494	0.009902
			11	rs9666607	CD44	5.494	0.009902

CHR1	rsID	Gene ID	CHR2	rsID	Gene ID	OR	P
11	rs2231454	CD59	20	rs6032681	CD40;CDH22	8.152	0.02943
11	rs996076	CD44	17	rs35729709	CD300E;RAB37	0.3116	0.03936
11	rs996075	CD44	11	rs4755854	CD82;TSPAN18	2.317	0.04613
			17	rs35729709	CD300E;RAB37	0.2572	0.008151
11	rs7934770	CD44	17	rs35729709	CD300E;RAB37	0.2908	0.04477
11	rs10836340	CD44	12	rs1059501	CD27-AS1	0.3324	0.04569
			17	rs35729709	CD300E;RAB37	0.1666	0.01259
11	rs713330	CD44	12	rs1059501	CD27-AS1	0.3324	0.04569
			17	rs35729709	CD300E;RAB37	0.1666	0.01259
11	rs9666607	CD44	12	rs1059501	CD27-AS1	0.3324	0.04569
			17	rs35729709	CD300E;RAB37	0.1666	0.01259
11	rs1547059	CD44	11	rs10838327	CD82;TSPAN18	18.01	0.04416
			11	rs7935663	CD82;TSPAN18	18.32	0.04316
11	rs11607862	CD44	11	rs1892938	CD248;RIN1	2.385	0.04655
11	rs9971373	CD82	11	rs1892938	CD248;RIN1	8.104	0.0458
			15	rs80307614	CD276	0.0322	0.02132
11	rs4755854	CD82;TSPAN18	11	rs10838327	CD82;TSPAN18	4.441	0.02433
			11	rs7935663	CD82;TSPAN18	4.482	0.02385
11	rs10769062	CD82;TSPAN18	11	rs10838327	CD82;TSPAN18	4.95	0.01619
			11	rs7935663	CD82;TSPAN18	4.993	0.01589
11	rs12420889	CD82;TSPAN18	11	rs10838327	CD82;TSPAN18	0.1172	0.007583
			11	rs7935663	CD82;TSPAN18	0.1008	0.007142
11	rs7935663	CD82;TSPAN18	11	rs1892938	CD248;RIN1	0.2217	0.03546
11	rs1892938	CD248;RIN1	12	rs1059501	CD27-AS1	2.34	0.04627
12	rs2253610	CD27-AS1	18	rs1788112	CD226	0.3897	0.04951
			20	rs6032681	CD40;CDH22	0.4277	0.03726
			20	rs2425764	CD40;CDH22	0.2297	0.03829
12	rs1059501	CD27-AS1	17	rs10512596	CD300LB	0.2742	0.007169
			17	rs4789074	CD300LB;CD300C	0.3633	0.02706
			17	rs11652446	CD300LB;CD300C	0.2742	0.007169
			17	rs4788845	CD300C	0.3756	0.01862
17	rs11653281	CD300C	18	rs1788112	CD226	4.936	0.03833
17	rs35729709	CD300E;RAB37	20	rs2425759	CD40;CDH22	0.1388	0.02969
			20	rs2425764	CD40;CDH22	0.08567	0.04516
18	rs1788112	CD226	20	rs11569333	CD40	27.51	0.008793
			20	rs3765457	CD40	22.27	0.01109
			20	rs6032681	CD40;CDH22	0.26	0.03521
19	rs73922419	CD70;TNFSF14	20	rs2424515	THBD;CD93	0.05183	0.02089
			20	rs1998081	THBD;CD93	0.05183	0.02089
			20	rs7492	CD93	0.07959	0.02078

CHR1	rsID	Gene ID	CHR2	rsID	Gene ID	OR	P
			20	rs2749812	CD93	0.1127	0.03388

PLINK v1.07 tool was used to perform the SNP-SNP interactions. Significance of the SNPs was maintained at $P < 0.05$. CHR, chromosome; OR, Odds ratio at 95% confidence interval.

Table S4. Significant haplotypes of THBS-CD family genes identified between the controls and patients of Cohort 2.

CH R	BP1	BP2	Gene ID	Haplotype	OR	P
1	27705565	27707859	CD164L2	rs2474287C-rs17162558C	0.487	0.0299
2	1.07E+08	1.07E+08	CD8B2;ST6GAL2	rs4381779G-rs56018727A-rs74879177G	0.373	0.0248
2	1.07E+08	1.07E+08	CD8B2;ST6GAL2	rs12712257A-rs1006472C-rs7599975A-rs898456A- rs17220280G-rs1551718G-rs4487086A- rs1448118G-rs10514794C-rs6721068A- rs2377685C-rs5833209A-rs2241992A-rs1006413G	0.573	0.0249
2	1.07E+08	1.07E+08	CD8B2;ST6GAL2	rs12712257G-rs1006472A-rs7599975G-rs898456G- rs17220280G-rs1551718A-rs4487086G- rs1448118A-rs10514794A-rs6721068G- rs2377685A-rs5833209G-rs2241992G-rs1006413A	1.7	0.0331
5	79288995	79292899	THBS4	rs1438739A-rs7707036G	0.502	0.0139
11	44649231	44657500	CD82;TSPAN18	rs4755854G-rs11820438G-rs10769062A- rs7113690G-rs7113954G-rs12420889G	0.533	0.0381
11	44649231	44657500	CD82;TSPAN18	rs4755854A-rs11820438A-rs10769062G- rs7113690A-rs7113954A-rs12420889A	1.69	0.0463
17	72523224	72536901	CD300LB, CD300LB;CD300C, CD300C	rs10512596G-rs4789074G-rs11652446A- rs4788845A	2.07	0.00694
17	72523224	72536901	CD300LB, CD300LB;CD300C, CD300C	rs10512596A-rs4789074A-rs11652446C- rs4788845G	0.52	0.0096
20	44769666	44771565	CD40;CDH22	rs6074037G-rs11696696A	0.51	0.00989
20	44755889	44757213	CD40	rs11569333G-rs3765457A	4.01	0.0171
20	23048733	23062927	THBD;CD93	rs2424515G-rs1998081A-rs7492A-rs2749812A	4.44	0.0228
20	44755889	44757213	CD40	rs11569333A-rs3765457G	0.273	0.026
20	44769666	44771565	CD40;CDH22	rs6074037A-rs11696696C	1.73	0.0294
20	23048733	23062927	THBD;CD93	rs2424515A-rs1998081G-rs7492G-rs2749812G	0.313	0.03

PLINK v1.07 tool was used to perform the haplotype analysis using general linear model. Significance of the SNPs was maintained at $P < 0.05$. CHR, chromosome; OR, Odds ratio at 95% confidence interval.