Supplementary Table 1: List of immune related genes analyzed by transcriptome assay.

Gene Symbol																																			
1	S100A8	51	MAPKAPK	101	CD44	151	ISG15	201	HCK	251	FCGR3A	301	TLR6	351	CD24	401	DDX50	451	IL26	501	CD3EAP	551	CLEC4A	601	IRF3	651	PTGDR2	701	NOD2	751	CTCFL	801	TPSAB1;
2	ITGB1	52	CLU; MIR6	102	GNLY	152	LY86	202	ICOSLG	252	IL1RN	302	IKBKG	352	CD38	402	CTAG1B; C	452	IDO1	502	MAGEC2	552	IGF2R	602	TNFRSF13	652	IL16	702	IL3RA	752	SMPD3	802	TNFRSF18
3	FCER1G	53	TGFB1	103	NCF4	153	ETS1	203	GZMA	253	CR2	303	IL10	353	MSR1	403	TMED7-TI	453	TOLLIP	503	MPPED1	553	LTA	603	CSF3R	653	DDX43	703	TNFRSF9	753	CD1A	803	LAG3
4	RPS6	54	EDC3	104	IFI35	154	C6	204	SPA17	254	PMCH	304	KLRG1	354	CXCL13	404	BLK	454	GAGE1	504	SMAD3	554	CCRL2	604	XCR1	654	POU2AF1	704	CEACAM8	754	TNF	804	CCR3
5	S100A12	55	HLA-C	105	JAK2	155	BCL2L1	205	CSF1R	255	CSF2RB	305	PRPF38A	355	POU2F2	405	MNX1	455	GPATCH3	505	ENG	555	ZKSCAN5	605	CD180	655	KLRC2	705	GZMK	755	NOD1	805	CXCL14
6	PPBP	56	CXCR4	106	TLR1	156	SDHA	206	FCER2	256	RODPN1	306	CYLD	356	IL4	406	CAMP	456	MAGEA12	506	SIGIRR	556	PPARG	606	CD59	656	CX3CR1	706	RELB	756	SPINK5	806	ITGA5
7	CD55	57	ITGAE	107	ITGA2B	157	CLEC7A	207	PYCARD	257	IFIT2	307	TIGIT	357	KLRD1	407	TNFSF4	457	CD14	507	SYCP1	557	IL22RA2	607	CCL28	657	CD274	707	NFATC1	757	TLR2	807	CCL21
8	ATF2	58	CYBB	108	TNFSF13B	158	CXCL5	208	TAPBP	258	CD79B	308	MAP3K7	358	CD34	408	ATG16L1	458	SPN	508	BLNK	558	GPI	608	IFIH1	658	CD44	708	IRF7	758	IL17RA	808	TMEFF2
9	UBC	59	MTMR14	109	HLA-E	159	CCL7	209	TLR5	259	CD276	309	HAVCR2	359	IL1RAPL2	409	ECSIT	459	IL13	509	NT5E	559	CD40	609	PVR	659	CFP	709	IRF8	759	IL18	809	IMRC1
10	CD53	60	CASP3	110	IL32	160	EP300; MI	210	CD58	260	IL7R	310	MAGEA4	360	MS4A1	410	CD8A	460	CLEC4C	510	ICAM1	560	CXCL3	610	EIF2B4	660	ARG2	710	APOE	760	CTLA4	810	ADA
11	PPIA	61	REL	111	TREM1	161	IL17B	211	INPP5D	261	STAT6	311	MAGEB2	361	TNFSF8	411	CD19	461	NOTCH1	511	MAP4K2	561	LILRB3	611	EGFR	661	CXCL1	711	TREM2	761	TNFRSF11	811	CTSH
12	BLNK	62	F13A1	112	IL2RG	162	C4B	212	SIGLEC1	262	KLRF1	312	IL6	362	IL22	412	INPP5D	462	ALAS1	512	MICA	562	CXCR5	612	IRGM	662	CREBS	712	IL17RB	762	CXCR6	812	GTF3C1
13	CD63	63	LCN2	113	LRRN3	163	ITGAM	213	SPN	263	KLRB1	313	MRPS5	363	CASP8	413	STAT5B	463	LY9	513	CXCL10	563	TTK	613	STAT4	663	FLT3	713	DOCK9	763	CSF2	813	SYK
14	FCGR2A	64	CD48	114	C1QBP	164	PLAU	214	TYK2	264	BST2	314	IL15	364	TNFSF13	414	IFI27	464	SSX1	514	IL5RA	564	RORA	614	MAP3K1	664	CDH1	714	HDAC3	764	IKBKB	814	PDGFRB
15	MAVS	65	CXCL16	115	HLA-DQB1	165	PDCD1	215	MR1	265	IL7	315	MSR1	365	RUNX1	415	CCL25	465	IL1RAP	515	C8B	565	IL1RAP	615	TCF7	665	TFRC	715	SOCS1	765	FOXJ1	815	SLAMF1
16	TXNIP	66	PRKCE	116	CD1C	166	CD1D	216	FYN	266	JAK3	316	TLK2	366	AMBP	416	CLEC6A	466	CCR6	516	BAGE5	566	TPTE	616	CX3CL1	666	C3	716	FUT5	766	CRP	816	TNFRSF4
17	IFI16	67	CD68	117	TUBB	167	PIK3CD	217	GZMB	267	CR1	317	FPR2	367	CNOT4	417	MAP3K5	467	VCAM1	517	MFGE8	567	CD200	617	C5	667	TNFRSF10	717	PRG2	767	MASP1	817	ELANE
18	CD37	68	HLA-DPB1	118	TNFRSF12	168	FCGR2B	218	NCR1	268	POLR2A	318	IL4R	368	CTAG1B	418	TLR10	468	CD207	518	ULBP2	568	RAG1	618	IL6R	668	TICAM1	718	LRP1	768	TBP	818	NEFL
19	PTPRC	69	KRAS	119	PDGFC	169	BCL6	219	CTCFL	269	BRAF	319	LILRA1	369	CD40LG	419	GUSB	469	IL2	519	CCND3	569	CTSW	619	CD160	669	CD4	719	C8A	769	TLR9	819	RRAD
20	HLA-DRA	70	INPP5D	120	HLA-A	170	CCR2	220	BST1	270	IFIT1	320	CD1E	370	RELA	420	IRF5	470	TLR4	520	CCL23	570	CREB1	620	ATG16L1	670	MAVS	720	IL12B	770	KIR2DS5;	820	MCAM;
21	IFITM1	71	IKBKE	121	CHIT1	171	SELPLG	221	IL5	271	CDK1	321	CD83	371	PTGS2	421	FCGR1A	471	IKBKB	521	IL17F	571	MEFV	621	CD27	671	SAP130	721	CEBPB	771	IL3	821	INPP5D
22	IFITM2	72	ATM	122	CD163	172	CTAGE1	222	IL17A	272	TNFRSF11	322	CTSG	372	CHUK	422	INPP5D	472	HPRT1	522	CCL3	572	LAMP3	622	SERPING1	672	CTA-109P	722	TLR7	772	CD2	822	NRP1
23	CCL27	73	PECAM1	123	ATG12	173	IL34	223	CD247	273	SLC11A1	323	TNFSF13B	373	IL21	423	CSF3R	473	SEMG1	523	ITGAX	573	IRAK2	623	BCL10	673	IL12A	723	EBI3	773	IFNB1	823	IL22RA1
24	CD74	74	PSMD7	124	HLA-DMA	174	HLA-G	224	INPP5D	274	ABCF1	324	PRKCD	374	SLAMF6	424	IL18R1	474	DUSP4	524	SPP1	574	TLR4	624	PSMB10	674	C4BPA	724	COL3A1; M	774	PRM1	824	CCL4L2;
25	CD99	75	DPP4	125	DDX58	175	NFATC3	225	JAK2	275	GATA3	325	ITGA6	375	IL15RA	425	IL11	475	IL25	525	ATG16L1	575	CXCL2	625	AMMECR1	675	SPANXB1	725	INPP5D	775	TFE3	825	ITGAL
26	CD99	76	NRAS	126	ISG20	176	CCR7	226	CEACAM6	276	ATG16L1	326	ATG16L1	376	RIPK2	426	CD209	476	TLR8	526	TNFRSF14	576	INPP5D	626	C9	676	ATG16L1	726	LCK	776	DHX16	826	TAB1
27	MAPK8	77	MAP2K4;	127	PSMB9	177	EOMES	227	ITGA2	277	CCL2	327	FLT3LG	377	SLAMF7	427	CD6	477	LILRA5	527	C1R	577	TANK	627	CCL26	677	CCR5	727	GZMM	777	IL12RB2	827	SH2B2
28	CTSS	78	LAMP2	128	IFNAR1	178	CD164	228	CFI	278	C1QA	328	SELL	378	IL19	428	MICB	478	IL12RB1	528	FOXP3	578	CCL8	628	MERTK	678	TRIM39	728	CCL11	778	HSD11B1	828	NUP107
29	MEF2C	79	IFNGR1	129	MAPK1	179	NLRP3	229	CKLF-CMT	279	BTK	329	IL23A	379	SELE	429	IL6R	479	CXCL6	529	CMKLR1	579	AGK	629	CD33	679	CD5	729	C2	779	IFNG	829	TNFRSF11
30	APP	80	G6PD	130	HLA-DQA1	180	NOL7	230	ATG16L1	280	CCR4	330	CD53	380	GZMH	430	IGLL1	480	LILRA5	530	TAP2	580	IFNA17	630	CCR1	680	BIRC5	730	IL1RL1	780	MUC1	830	MAP4K2
31	NFKBIA	81	KLRC4-KLF	131	MX1	181	FAS	231	PRF1	281	IRF1	331	CLEC5A	381	VEGFC	431	ATG16L1	481	IRF4	531	S100A7	581	ELK1	631	CASP10	681	F2RL1	731	ABCB1	781	MST1R	831	FN1
32	CCND3	82	IL16	132	BID	182	ATG7	232	CXCR3	282	TNFSF15	332	HLA-DPA1	382	CDKN1A	432	ATG16L1	482	COMMD3	532	INPP5D	582	ITGB2	632	RUNX1	682	MAPK11	732	IL3RA	782	CSF3	832	CHIT1
33	AKT3	83	EWSR1	133	ATG5	183	TNFRSF1A	233	ZNF143	283	LAIR2	333	LAMP1	383	ITGB4	433	ATG16L1	483	CCL1	533	USP9Y; TT	583	DMBT1	633	INPP5D	683	IL11RA	733	IL21R	783	SLAMF6	833	ICAM4
34	CD3E	84	CKLF; CKL	134	ADORA2A	184	TNFAIP3	234	PSMB7	284	CD81	334	LTK	384	TLR3	434	TNFRSF13	484	ITGAM	534	IFNA8	584	HLA-DOB	634	HRAS	684	CXCL9	734	TNFSF11	784	ATG16L1	834	NLRC5
35	ANP32B	85	TAP1	135	LYN	185	FCER1A	235	INPP5D	285	NFATC2	335	ATG16L1	385	CCL3L3; C	435	PIK3CG	485	SERPINB2	535	TMUB2	585	MAP2K1	635	CCL13	685	FOS	735	IFNA1	785	SBNO2	835	TNFRSF17
36	HLA-DMB	86	ITGB3	136	IL1R2	186	RUNX3	236	INPP5D	286	ICOSLG	336	LILRB1	386	MAPK3	436	BCL2	486	KLRC1	536	CTSL	586	SPO11	636	CD28	686	DNAJC14	736	CCL18	786	THBD	836	HAMP
37	SELL	87	CD47	137	ZNF205	187	MARCO	237	CSF1	287	ATG16L1	337	ICAM2	387	CD79A	437	NCAM1	487	PIN1	537	CD200; RP	587	TRAF6	637	SF3A3	687	CD70	737	ATG16L1	787	EGR1	837	PASD1
38	LCP1	88	IL18RAP	138	LTF	188	NRP1	238	IRAK1; MI	288	CXCR1	338	CD3G	388	REPS1	438	AIRE	488	CCL17	538	IGF1R	588	ATF1	638	ATG16L1	688	MS4A2	738	INPP5D	788	CCL14;	838	IL27
39	HMGB1	89	LILRB2	139	BAX	189	STAT1	239	IL1R1	289	AICDA	339	MAPK14	389	PAX5	439	IFNA7	489	TBX21	539	POU2AF1	589	CFD	639	CCL4L2; C	689	IL9	739	IL3RA	789	BTLA	839	MASP2
40	ANXA1	90	CD46	140	VEGFA	190	PSEN2	240	SH2D1B	290	TRAF2	340	NCAM1	390	AXL	440	IL1RL2	490	YTHDF2	540	LGALS3	590	CD80	640	LIF	690	CD9	740	PSEN1	790	COLEC12	840	SYT17
41	HLA-B	91	LTB	141	TAL1	191	TNFSF10	241	MBL2	291	EGR2	341	MIF	391	S100B	441	TNFSF14	491	CMA1	541	IL2RA	591	CCR9	641	C1QB	691	PBK	741	TIRAP	791	CFB	841	COG7
42	CCL5	92	STAT3	142	IL10RA	192	ITGB2	242	CCL19	292	STAT5B	342	KRAS	392	C3AR1	442	OAS3	492	EPCAM	542	FADD	592	IFNA2	642	IL23R	692	CYFIP2	742	ATG16L1	792	SAA1	842	SPACA3
43	PLAUR	93	USP39	143	INPP5D	193	CXCR2	243	IL13RA2	293	BATF	343	PLA2G6	393	ZC3H14	443	ATG16L1	493	RORA	543	CARD11	593	MAF	643	TLR1	693	ZNF346	743	SH2D1A	793	A2M	843	RORC
44	CASP1	94	IL6ST	144	MAP2K1	194	ATG16L1	244	CD86	294	ATG10	344	CD46	394	NFKB1	444	MAGEA3	494	C1S	544	PRAME	594	TPSB2; TP	644	IRAK4	694	CCL24	744	IFNL2	794	F12	844	C7
45	CD96	95	BAGE; BA	145	PNMA1	195	MAP2K2	245	TFRC	295	IFNL1	345	ERCC3	395	CT45A1	445	IL13RA1	495	ARG1	545	CXCL12	595	CD7	645	RP5-1091I	695	ITK	745	CCL20	795	THY1	845	TFEB
46	RUNX1	96	TNFRSF1B	146	SMAD2	196	MME	246	TNFRSF10	296	TNFRSF8	346	IRF2	396	DEFB1	446	PLA2G1B	496	BLK	546	CD1B	596	MAGEC1	646	CXCL11	696	SYK	746	TNFSF12	796	SH2B2	846	PIK3CG
47	IFNAR2	97	MYD88	147	ITCH	197	ENTPD1	247	CD36	297	LTBR	347	JAM3	397	NFATC4	447	CD84	497	CNOT10	547	CDH5	597	TNFSF18	647	TRAF3	697	SSX4B; SSX	747	ABL1	797	CARD9	847	CC2D1B
48	JAK1	98	CREBBP	148	IL1B	198	AMICA1	248	TBK1	298	NFKB2	348	FCF1	398	DPP4	448	SSX4B	498	MAGEA1	548	ZAP70	598	ALCAM	648	CEACAM1	698	PDCD1LG2	748	C8G	798	CCL22		
49	LY96	99	PSMB8	149	DUSP6	199	CD244	249	TP53	299	STAT2	349	ICOS	399	ILF3	449	TXK	499	IL2RB	549	CCL16	599	TGFB2; TG	649	CD8B	699	FEZ1	749	IL24	799	ITGA4		
50	THBS1	100	ST6GAL1	150	CD3D	200	OSM	250	INPP5D	300	CD22; MIR	350	FUT7	400	LILRA4	450	ICAM3	500	ATG16L1	550	NUBP1	600	IL1A	650	LBP	700	KIT	750	XCL2	800	PELO; ITGA1		