

## Supplementary Methods

### **Intracellular cellular cytokine staining**

For cytokine staining, the collected cells were stimulated with PMA (50 ng/ml; Sigma) and ionomycin (1 mg/ml; Sigma) in the presence of Golgi Plug (BD Biosciences) for 6 h. Cells were stained with surface protein antibody followed by fixation and permeabilization and stained with APC-anti IFN- $\gamma$ . Cells were acquired and qualified by the Canto II flow cytometer (BD biosciences) and data analyzed using Diva software. Biexponential transformation was applied to display the flow cytometry data.

### **Tumor infiltrating lymphocytes (TIL) preparation**

Mouse livers were removed and minced into 1 mm<sup>3</sup> pieces. Digested with 0.125mg/ml collagenase IV and 0.2mg/ml DNase I for 30 min at 37°C. Subsequently, cellular suspensions were passed through a 200-gauge stainless steel mesh and then suspended in PBS centrifuged at 50g for 5 minutes. Supernatants containing TILs were collected and resuspended in 30% Percoll (GE Healthcare). The cell suspension was gently overlaid onto 70% Percoll and centrifuged for 30 min at 1260g. TILs were collected from the interphase and can be used for flow cytometry analysis and real-time PCR.

### **Real-time PCR for gene transcription**

Total RNA was extracted using TRIzol Reagent (Invitrogen) and one microgram total RNA was reverse transcribed. The primers used in this study were as follows: IFN- $\gamma$ : sense, 5'-CAC AGT CAT TGA AAG CCT AGA-3'; antisense, 5'-TTG CCA GTT CCT CCA GAT AT-3'; perforin: sense, 5'-CAC AGT AGA GTG TCG CAT GTA C-3'; antisense, 5'-GGA GAT GAG CCT GTG GTA AG-3'; and  $\beta$ -actin: sense, 5'- AAG ATG ACC CAG ATC ATGTTT GAG ACC-3'; antisense, 5'- AGC CAG GTC CAG ACG CAG GAT-3'.

## Supplementary Figure Legends

**Fig. S1.  $\gamma\delta$  T cell specific genes set in tumor tissues, but not non-tumor tissues, is associated with HCC prognosis in TCGA cohort.** (A) Kaplan-Meier survival analyses based on the  $\gamma\delta$  T cell gene signature in the tumor tissues of TCGA cohorts of 242 HCC cases. (B) Recurrence-free survival in 242 TCGA HCC cases described in (A). (C) Immune cytolytic activity ('CYT') was calculated based on transcript levels of two key cytolytic effectors, granzyme A (GZMA) and perforin (PRF1). (D) Comparison of KLRK1 expression level in the high risk and low risk subgroups in the HCC tumor samples based on the microarray data. (E) Comparison of DNAM-1(CD226) expression level in the high risk and low risk subgroups in the HCC tumor samples based on the microarray data. (F) Comparison of CD96 expression level in the high risk and low risk subgroups in the HCC tumor samples based on the microarray data.

**Fig. S2. Chemokines expression in the HCC tumor tissues stratified by  $\gamma\delta$  T cell gene signature predicted  $\gamma\delta$  T high-and  $\gamma\delta$  T low-subgroups in TCGA cohort.** (A) Correlation between the CCL4, CCL5, CCR5 expression and  $\gamma\delta$  T cells level in HCC tumor tissues. (B) Comparison of the expression of CCL4 and CCL5 in the two predefined subgroups.

**Fig. S3. Validation of CCL5 expression in formalin fixed, paraffin embedded tissues by immunohistochemistry.** Representative immunohistochemistry staining pattern of CCL5 in non-tumor(left) and tumor(right) tissues. Magnification power in upper panel is 100 $\times$ , the scale bar represents 100  $\mu\text{m}$ , in lower panel is 400 $\times$  and the Scale bar represents 20  $\mu\text{m}$ .

**Fig. S4. CCR5 expression in murine lymphocytes and in Hepa1-6 HCC cells.** (A) The C57BL/6 mice splenic and hepatic lymphocytes were stained by FITC-anti CD4, PE-anti CD3, Percp-anti CCR5, PE/Cy7-anti TCR  $\gamma\delta$  and APC-anti CD8. CD4<sup>+</sup>T cells were gated on CD3<sup>+</sup>CD4<sup>+</sup> group. CD8<sup>+</sup>T cells were gated on CD3<sup>+</sup>CD8<sup>+</sup>group.  $\gamma\delta$  T cells were gated on CD3<sup>+</sup>TCR  $\gamma\delta$ <sup>+</sup> group. A representative FACS histogram was used to demonstrate the CCR5 expression levels in CD4<sup>+</sup>, CD8<sup>+</sup> and  $\gamma\delta$  T lymphocytes from spleen (left panel) or liver (right panel). (B) The percentage of CCR5 expression level in CD4<sup>+</sup>, CD8<sup>+</sup> and  $\gamma\delta$  T lymphocytes from spleen (left panel) or liver (right panel). (C) A total of  $1 \times 10^6$  cultured hepa1-6 cells were harvested and lysed in RIPA to obtain total protein lysates. NuPAGE™ 4-12% Bis-Tris Protein Gel (Invitrogen, NP0336BOX) was used to separate 100  $\mu\text{g}$  of total protein. The anti-CCL4 (1:500, R&D), anti-CCL5 (1:2000, R&D) and anti- $\beta$ -actin (1:1000, CST) antibodies were used for western blot analysis. Duplicate lysates were loaded.

**Fig. S5. Effect of CCD4/5 on cellular migration of  $\gamma\delta$  T cells.** (A) Intracellular IFN- $\gamma$  expression levels on migrated and unmigrated  $\gamma\delta$  T cells in a transwell migration assay. Cells were stimulated by PMA and ionomycin in the presence of Golgi Plug for 6 h. Cells were first stained with FITC-anti CD3 and PE/Cy7-anti TCR  $\gamma\delta$  to identify  $\gamma\delta$  T cells, and then were fixed and permeabilized followed by staining with APC-anti IFN- $\gamma$  to determine intracellular IFN- $\gamma$  by flow cytometry. Representative FACS histograms were used to demonstrate the relative expression levels of IFN- $\gamma$  in  $\gamma\delta$  T cells from different treatment groups. (B) Three shRNA

sequences targeting CCL5 were designed and tested for their ability to downregulate CCL5 in Hepa1-6 cells. Hepa1-6 cells were simultaneously transfected with sh-CCL5 or scrambled sequence to knock down the CCL5 expression. Real time RT-PCR was used to detect the expression levels of CCL5.

Fig. S1

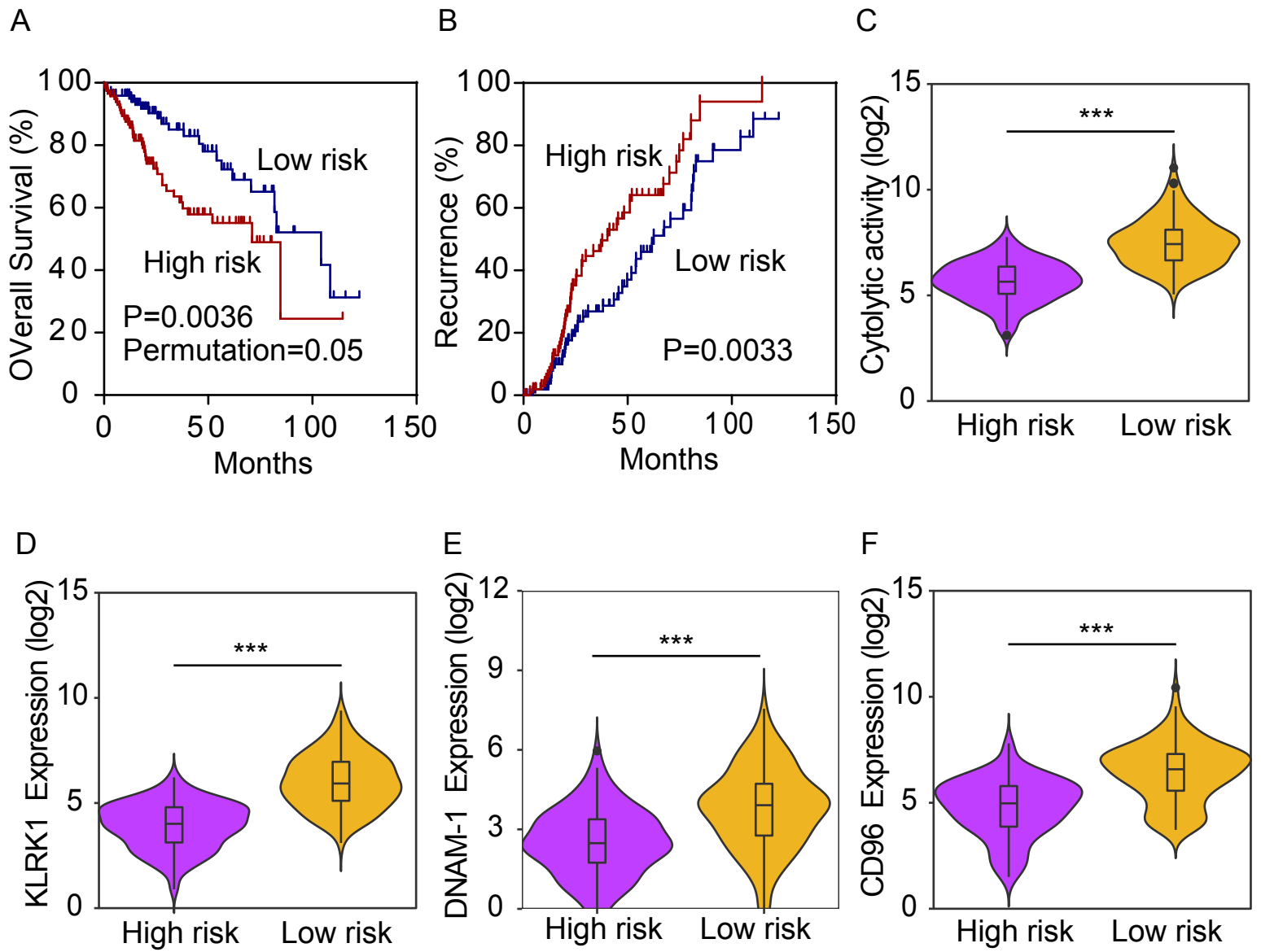
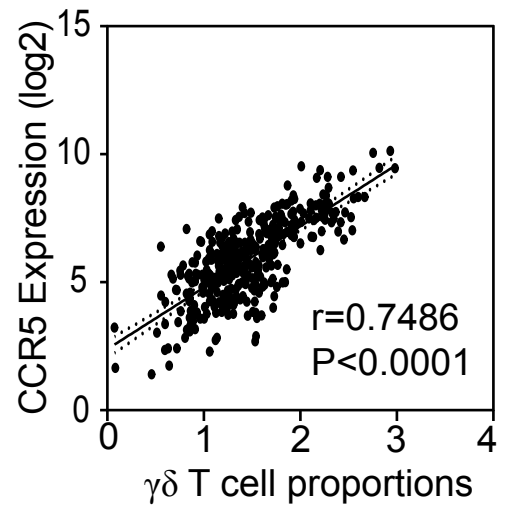
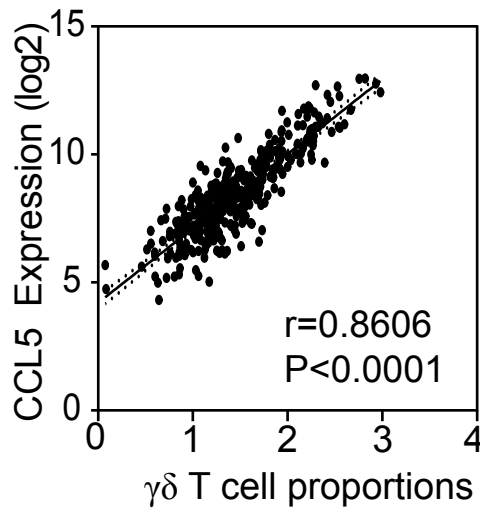
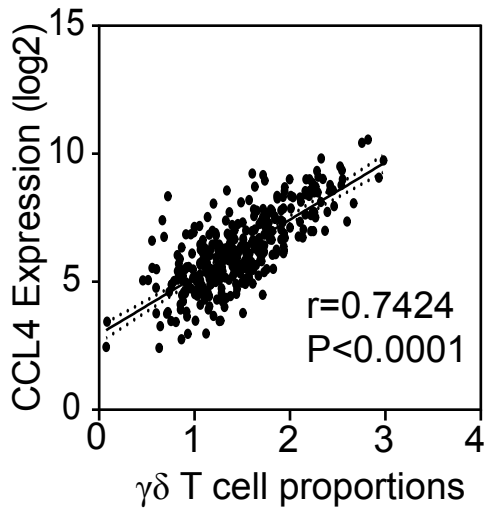


Fig. S2

A



B

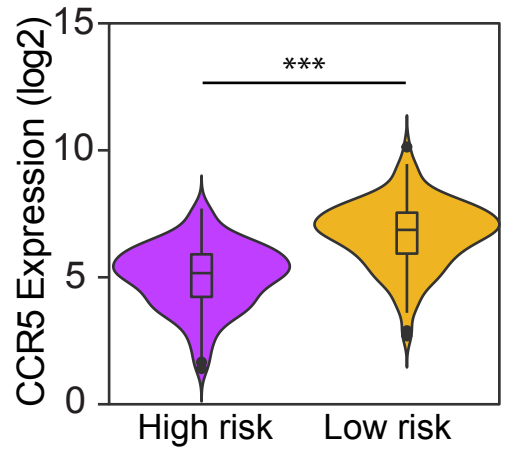
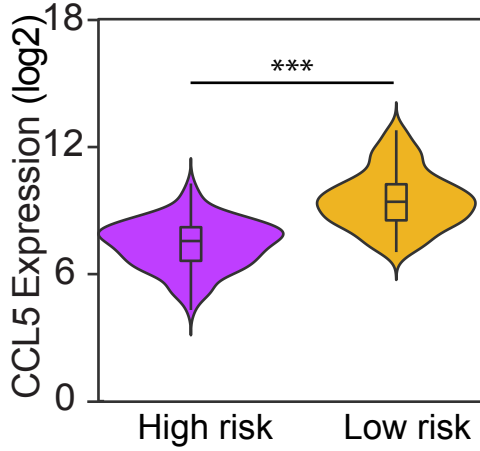
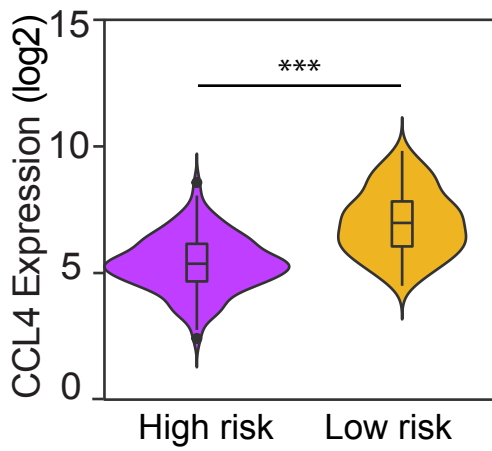
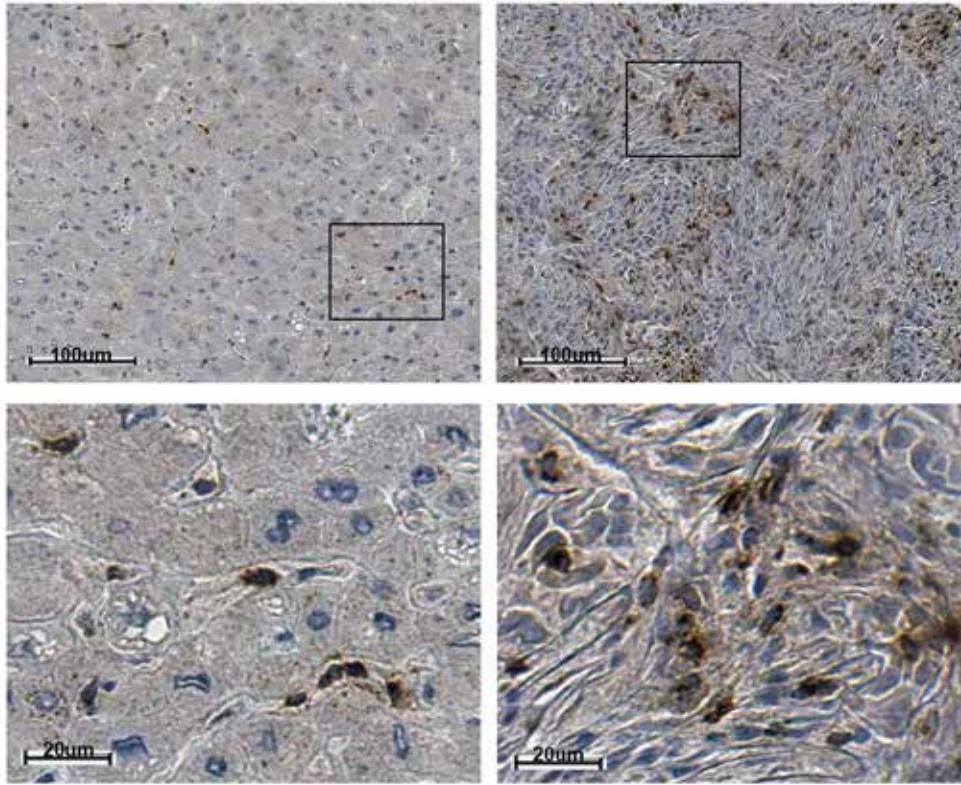


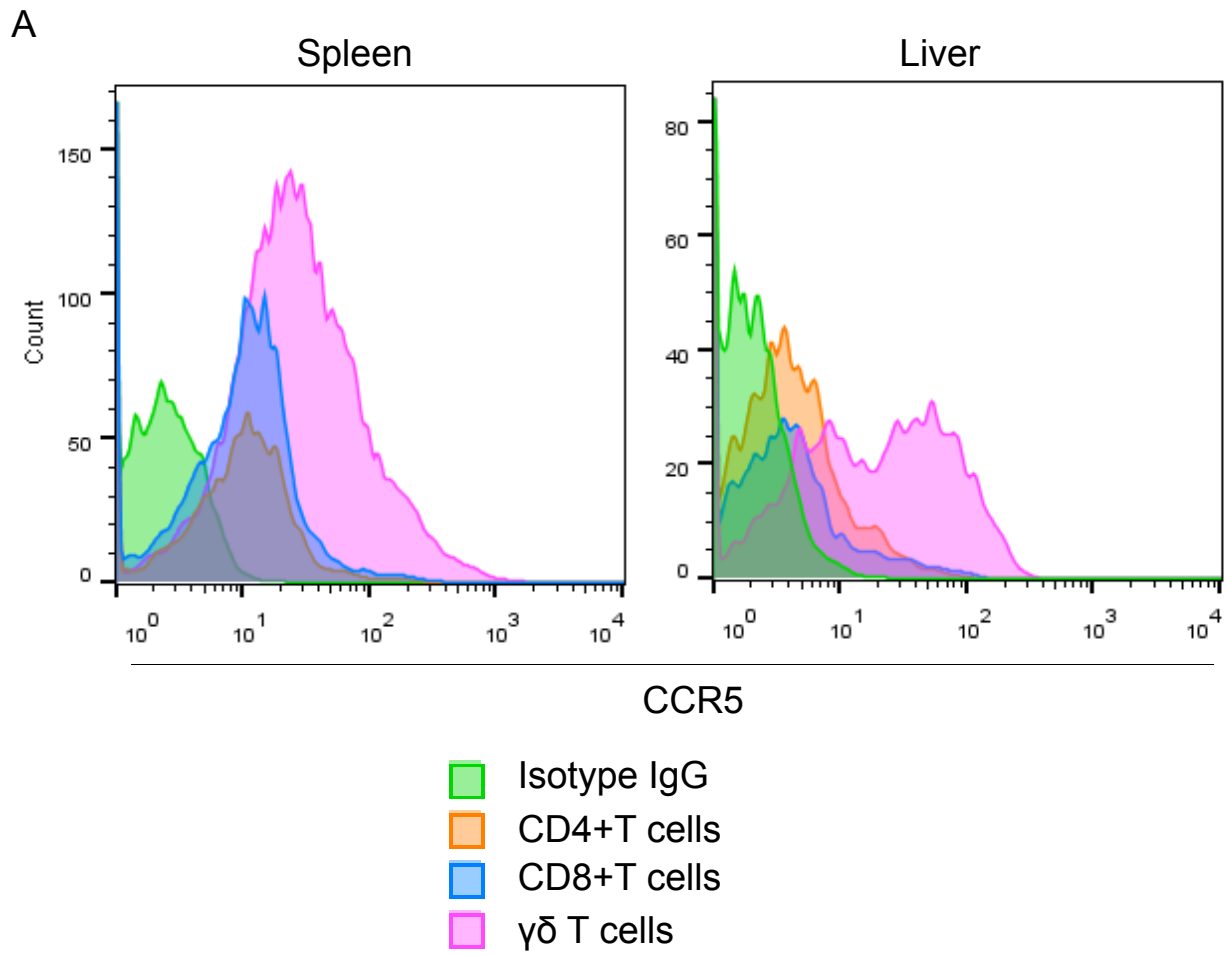
Fig. S3



Non-Tumor

Tumor

Fig. S4



**B**

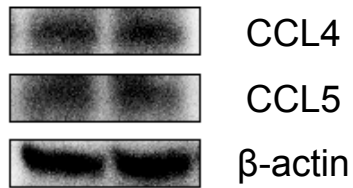
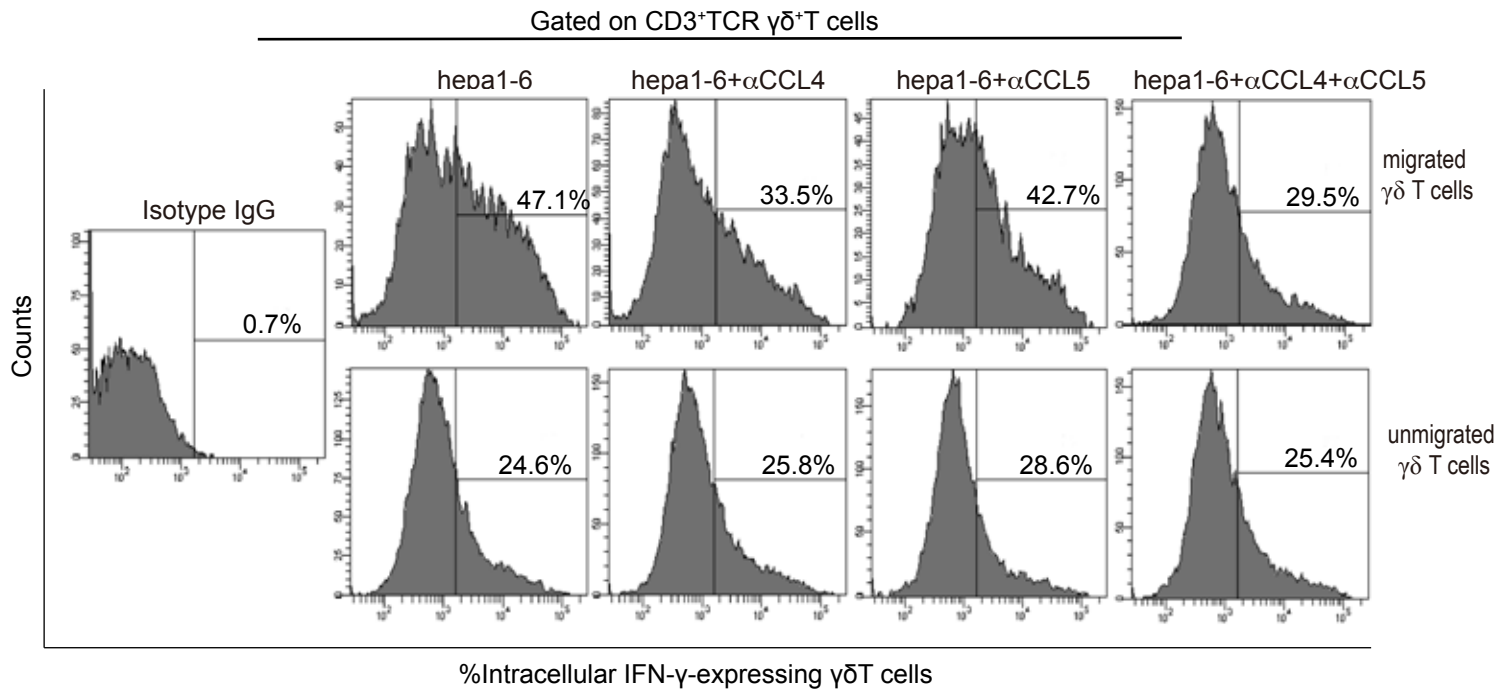
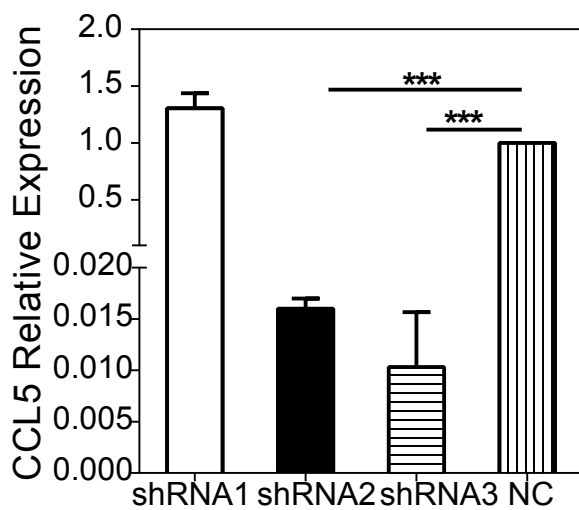


Fig. S5

A



B





**Table S1: Clinical characteristics of patients in the LCI gene array cohort (n=240).**

<b>Clinical variable</b>	<b>groups</b>	<b>number</b>	<b>%</b>
<b>Age(yr)</b>	>50	119	49.58
	≤50	121	50.42
<b>Gender</b>	male	209	87.08
	female	31	12.92
<b>HBV viral status</b>	AVR-CC	58	24.17
	CC	158	65.83
	n.a.	24	10
<b>AFP(ng/ml)</b>	≤300	127	52.92
	>300	113	47.08
<b>CEA</b>	≤3	135	56.25
	>3	105	43.75
<b>Ca19-9</b>	≤37	152	63.33
	>37	88	36.67
<b>BCLC Staging</b>	0+A	171	71.55
	B+C	52	21.67
	n.a.	17	7.08
<b>TNM</b>	I	97	40.41
	II	79	32.92
	III	51	21.25
	n.a.	13	5.42
<b>OKUDA</b>	0	191	79.58
	1	32	13.33
	n.a.	17	7.08
<b>Clip stage</b>	0-2	210	87.5
	3-5	30	12.5
<b>Multinodular</b>	yes	51	21.25
	no	189	78.75
<b>Tumor size(cm)</b>	>3	166	69.17
	≤3	73	30.42
	n.a.	1	0.42
<b>Microvascular invasion</b>	yes	88	36.67
	no	105	43.75
	n.a.	47	19.58
<b>Cirrhosis</b>	yes	219	91.25
	no	21	8.75

n.a.: not available

AVR-CC: active viral replication chronic carrier

CC: chronic carrier

**Table S2: The GSEA results of the DEGs between HR and LR groups in the LCI cohort.**

Postive DEGs enrichment results in the C2:KEGG		SIZE	ES	NES	NOM p-val	FDR q-val	FWE R p-val	RANK AT MAX	LEADING EDGE
follow link to MSigDB									
1	KEGG_VIRAL_MYOCARDITIS	20	0.68	3.43	0	0	0	242	tags=90%, list=25%, signal=117%
2	KEGG_ALLOGRAFT_REJECTION	18	0.72	3.42	0	0	0	242	tags=94%, list=25%, signal=123%
3	KEGG_AUTOIMMUNE_THYROID_DISEASE	18	0.72	3.37	0	0	0	242	tags=94%, list=25%, signal=123%
4	KEGG_GRAFT_VERSUS_HOST_DISEASE	19	0.68	3.35	0	0	0	242	tags=89%, list=25%, signal=117%
5	KEGG_TYPE_I_DIABETES_MELLITUS	19	0.68	3.27	0	0	0	242	tags=89%, list=25%, signal=117%
6	KEGG_SYSTEMIC_LUPUS_ERYTHEMATOSUS	18	0.67	3.23	0	0	0	161	tags=78%, list=17%, signal=91%
7	KEGG_CYTOKINE_CYTOKINE_RECEPTOR_INTERACTION	44	0.44	3.05	0	0	0	227	tags=59%, list=23%, signal=74%
8	KEGG_CHEMOKINE_SIGNALING_PATHWAY	37	0.44	2.91	0	0	0	363	tags=76%, list=37%, signal=116%
9	KEGG_INTESTINAL_IMMUNE_NETWORK_FOR_IGA_PRODUCTION	18	0.58	2.79	0	0	0	251	tags=78%, list=26%, signal=103%
10	KEGG_CELL_ADHESION_MOLECULES_CAMS	32	0.46	2.77	0	0	0	183	tags=56%, list=19%, signal=67%
11	KEGG_ANTIGEN_PROCESSING_AND_PRESENTATION	26	0.49	2.75	0	0	0	161	tags=58%, list=17%, signal=67%
12	KEGG_LEISHMANIA_INFECTION	19	0.57	2.74	0	0	0	181	tags=68%, list=19%, signal=82%
13	KEGG_NATURAL_KILLER_CELL_MEDIATED_CYTOTOXICITY	29	0.4	2.35	0	0.001	0.008	242	tags=59%, list=25%, signal=76%
14	KEGG_FC_GAMMA_R_MEDIATED_PHAGOCYTOSIS	19	0.39	1.93	0.008	0.014	0.109	451	tags=84%, list=46%, signal=154%
15	KEGG_PRIMARY_IMMUNODEFICIENCY	16	0.41	1.83	0.019	0.026	0.207	475	tags=88%, list=49%, signal=168%
16	KEGG_T_CELL_RECEPTOR_SIGNALING_PATHWAY	26	0.32	1.81	0.02	0.026	0.228	431	tags=73%, list=44%, signal=128%
17	KEGG_HEMATOPOIETIC_CELL_LINEAGE	23	0.34	1.78	0.009	0.031	0.276	395	tags=70%, list=41%, signal=114%

Negative DEGs enrichment results in the C2:KEGG		SIZE	ES	NES	NOM p-val	FDR q-val	FWER p-val	RANK AT MAX	LEADING EDGE
follow link to MSigDB									
1	KEGG_CELL_CYCLE	23	-0.54	-2.9	0	0	0	233	tags=74%, list=24%, signal=95%

Postive DEGs enrichment results in the C3		SIZE	ES	NES	NOM p-val	FDR q-val	FWER p-val	RANK AT MAX	LEADING EDGE
follow link to MSigDB									
1	RYTTCCTG_ETS2_B	96	0.32	3.01	0	0	0	483	tags=78%, list=50%, signal=140%
2	NFKAPPAB_01	18	0.49	2.34	0	0.023	0.058	201	tags=61%, list=21%, signal=76%
3	IRF1_01	26	0.41	2.32	0	0.018	0.064	197	tags=54%, list=20%, signal=66%
4	ETS1_B	20	0.45	2.31	0.002	0.015	0.072	508	tags=95%, list=52%, signal=194%
5	ELF1_Q6	25	0.41	2.27	0	0.014	0.086	454	tags=88%, list=47%, signal=161%

Negative DEGs enrichment results in the C3		SIZE	ES	NES	NOM p-val	FDR q-val	FWER p-val	RANK AT MAX	LEADING EDGE
follow link to MSigDB									
1	E2F4DP2_01	21	-0.6	-3.23	0	0	0	361	tags=95%, list=37%, signal=148%
2	E2F4DP1_01	21	-0.6	-3.2	0	0	0	361	tags=95%, list=37%, signal=148%
3	E2F1DP1_01	21	-0.6	-3.19	0	0	0	361	tags=95%, list=37%, signal=148%
4	E2F_03	24	-0.57	-3.18	0	0	0	396	tags=96%, list=41%, signal=158%
5	E2F1DP2_01	21	-0.6	-3.17	0	0	0	361	tags=95%, list=37%, signal=148%
6	E2F_02	21	-0.6	-3.12	0	0	0	361	tags=95%, list=37%, signal=148%
7	E2F_Q6	21	-0.59	-3.1	0	0	0	328	tags=90%, list=34%, signal=133%
8	E2F_Q4_01	29	-0.49	-3.02	0	0	0	447	tags=93%, list=46%, signal=167%
9	E2F_Q4	20	-0.6	-2.99	0	0	0	276	tags=85%, list=28%, signal=116%

10	RCGCANGCGY_NRF1_Q6	48	-0.38	-2.95	0	0	0	384	tags=75%, list=39%, signal=118%
11	E2F_Q6_01	26	-0.52	-2.94	0	0	0	410	tags=92%, list=42%, signal=155%
12	TGCACTT_MIR519C_MIR519B_MIR519A	21	-0.54	-2.94	0	0	0	410	tags=95%, list=42%, signal=161%
13	E2F1DP1RB_01	20	-0.56	-2.89	0	0	0	228	tags=75%, list=23%, signal=96%
14	E2F1_Q6	21	-0.55	-2.87	0	0	0	361	tags=90%, list=37%, signal=141%
15	E2F_Q3_01	25	-0.49	-2.84	0	0	0	334	tags=80%, list=34%, signal=119%
16	ACTAYRNNNCCCR_UNKNOWN	16	-0.61	-2.81	0	0	0	328	tags=94%, list=34%, signal=139%
17	E2F1_Q4_01	25	-0.49	-2.77	0	0	0	334	tags=80%, list=34%, signal=119%
18	SGCGSSAAA_E2F1DP2_01	17	-0.59	-2.76	0	0	0	307	tags=88%, list=32%, signal=127%
19	E2F1_Q4	22	-0.5	-2.71	0	0	0.001	410	tags=91%, list=42%, signal=153%
20	E2F_Q3	23	-0.47	-2.66	0	0	0.002	410	tags=87%, list=42%, signal=147%
21	E2F1_Q3	17	-0.55	-2.53	0	0.001	0.01	193	tags=71%, list=20%, signal=86%
22	E2F1_Q6_01	21	-0.46	-2.39	0	0.002	0.031	233	tags=67%, list=24%, signal=86%
23	TGCACTG_MIR148A_MIR152_MIR148B	18	-0.48	-2.36	0	0.002	0.04	422	tags=89%, list=43%, signal=154%
24	E2F1_Q3_01	20	-0.44	-2.32	0	0.003	0.058	328	tags=75%, list=34%, signal=111%
25	GATTGGY_NFY_Q6_01	66	-0.26	-2.29	0	0.004	0.076	285	tags=52%, list=29%, signal=68%
26	NFY_01	20	-0.45	-2.28	0	0.004	0.078	364	tags=80%, list=37%, signal=125%
27	USF2_Q6	18	-0.47	-2.28	0	0.004	0.079	426	tags=89%, list=44%, signal=155%
28	TGCTGCT_MIR15A_MIR16_MIR15B_MIR195_MIR424_MIR497	29	-0.36	-2.23	0	0.005	0.111	438	tags=79%, list=45%, signal=140%
29	GGGCGGR_SP1_Q6	166	-0.18	-2.22	0	0.005	0.115	367	tags=51%, list=38%, signal=68%

30	CACGTG_MYC_Q2	56	-0.27	-2.21	0	0.005	0.122	386	tags=64%, list=40%, signal=100%
31	SCGGAAGY_ELK1_02	46	-0.28	-2.14	0.002	0.009	0.204	420	tags=70%, list=43%, signal=117%
32	YGCGYRCGC_UNKNOWN	21	-0.41	-2.12	0.004	0.011	0.234	365	tags=76%, list=37%, signal=119%
33	NRF1_Q6	15	-0.46	-2.11	0.002	0.011	0.244	408	tags=87%, list=42%, signal=147%
34	ACTGTGA_MIR27A_MIR27B	26	-0.36	-2.07	0.002	0.014	0.306	420	tags=77%, list=43%, signal=132%
35	CACTGCC_MIR34A_MIR34C_MIR449	27	-0.35	-2.04	0.007	0.016	0.37	249	tags=56%, list=26%, signal=73%
36	GCACTTT_MIR175P_MIR20A_MIR106A_MIR106B_MIR20B_MIR519D	36	-0.31	-2.03	0.005	0.017	0.395	155	tags=42%, list=16%, signal=48%
37	HLF_01	17	-0.41	-1.95	0.007	0.026	0.536	227	tags=59%, list=23%, signal=75%
38	TGTTTAC_MIR30A5P_MIR30C_MIR30D_MIR30B_MIR30E5P	33	-0.3	-1.92	0.004	0.031	0.604	438	tags=73%, list=45%, signal=128%
39	ALPHACP1_01	18	-0.38	-1.89	0.006	0.037	0.695	364	tags=72%, list=37%, signal=113%
40	AGCACTT_MIR93_MIR302A_MIR302B_MIR302C_MIR302D_MIR372_MIR373_MIR520E_MIR520A_MIR526B_MIR520B_MIR520C_MIR520D	22	-0.35	-1.86	0.013	0.042	0.747	155	tags=45%, list=16%, signal=53%

<b>Postive DEGs enrichment results in the C5</b>		<b>SIZE</b>	<b>ES</b>	<b>NES</b>	<b>NOM p-val</b>	<b>FDR q-val</b>	<b>FWER p-val</b>	<b>RANK AT MAX</b>	<b>LEADING EDGE</b>
<b>follow link to MSigDB</b>									
1	GO_IMMUNE_RESPONSE	190	0.469	5.6165	0	0	0	403	tags=76%, list=41%, signal=105%
2	GO_IMMUNE_SYSTEM_PROCESS	281	0.4	5.1638	0	0	0	405	tags=68%, list=42%, signal=82%
3	GO_DEFENSE_RESPONSE	172	0.442	4.9851	0	0	0	401	tags=75%, list=41%, signal=105%
4	GO_CYTOKINE_MEDIATED_SIGNALLING_PATHWAY	76	0.52	4.5599	0	0	0	251	tags=68%, list=26%, signal=85%
5	GO_REGULATION_OF_IMMUNE_RESPONSE	153	0.394	4.3851	0	0	0	551	tags=89%, list=57%, signal=173%
6	GO_REGULATION_OF_IMMUNE_SYSTEM_PROCESS	220	0.357	4.3749	0	0	0	567	tags=85%, list=58%, signal=158%
7	GO_POSITIVE_REGULATION_OF_IMMUNE_SYSTEM_PROCESS	166	0.366	4.1129	0	0	0	370	tags=64%, list=38%, signal=86%

8	GO_INNATE_IMMUNE_RESPONSE	103	0.416	4.0447	0	0	0	400	tags=75%, list=41%, signal=113%
9	GO_CELLULAR_RESPONSE_TO_CYTOKINE_STIMULUS	100	0.424	4.0212	0	0	0	284	tags=62%, list=29%, signal=79%
10	GO_IMMUNE_EFFECTOR_PROCESSES	94	0.43	4.0168	0	0	0	380	tags=73%, list=39%, signal=109%
11	GO_RESPONSE_TO_CYTOKINE	108	0.403	3.9755	0	0	0	242	tags=56%, list=25%, signal=66%
12	GO_REGULATION_OF_CELL_ACTIVATION	100	0.394	3.8886	0	0	0	487	tags=84%, list=50%, signal=151%
13	GO_RESPONSE_TO_INTERFERON_GAMMA	35	0.614	3.847	0	0	0	242	tags=80%, list=25%, signal=103%
14	GO_POSITIVE_REGULATION_OF_RESPONSE_TO_STIMULUS	228	0.312	3.8438	0	0	0	392	tags=61%, list=40%, signal=79%
15	GO_ACTIVATION_OF_IMMUNE_RESPONSE	91	0.41	3.811	0	0	0	392	tags=74%, list=40%, signal=112%
16	GO_POSITIVE_REGULATION_OF_IMMUNE_RESPONSE	113	0.381	3.8033	0	0	0	392	tags=70%, list=40%, signal=103%
17	GO_CELLULAR_RESPONSE_TO_INTERFERON_GAMMA	32	0.624	3.7903	0	0	0	242	tags=81%, list=25%, signal=105%
18	GO_INFLAMMATORY_RESPONSE	76	0.443	3.7894	0	0	0	514	tags=95%, list=53%, signal=185%
19	GO_IMMUNE_RESPONSE_REGULATING_CELL_SURFACE_RECEPTOR_SIGNALING_PATHWAY	70	0.436	3.6751	0	0	0	367	tags=74%, list=38%, signal=111%
20	GO_REGULATION_OF_CELL_CELL_ADHESION	81	0.408	3.6283	0	0	0	465	tags=84%, list=48%, signal=147%
21	GO_REGULATION_OF_HOMOTYPIC_CELL_CELL_ADHESION	71	0.422	3.5936	0	0	0	465	tags=86%, list=48%, signal=152%
22	GO_ADAPTIVE_IMMUNE_RESPONSE	72	0.417	3.5713	0	0	0	561	tags=96%, list=58%, signal=209%
23	GO_RESPONSE_TO_BIOTIC_STIMULUS	111	0.359	3.5621	0	0	0	521	tags=84%, list=53%, signal=160%
24	GO_POSITIVE_REGULATION_OF_CELL_ACTIVATION	81	0.392	3.5364	0	0	0	362	tags=69%, list=37%, signal=101%
25	GO_SIDE_OF_MEMBRANE	75	0.394	3.4837	0	0	0	294	tags=60%, list=30%, signal=79%
26	GO_ANTIGEN_RECEPTOR_MEDIATED_SIGNALING_PATHWAY	51	0.469	3.4613	0	0	0	367	tags=78%, list=38%, signal=119%
27	GO_RESPONSE_TO_EXTERNAL_STIMULUS	187	0.284	3.4114	0	0	0	473	tags=70%, list=49%, signal=110%

28	GO_ANTIGEN_BINDING	33	0.55	3.41	0	0	0	161	tags=61%, list=17%, signal=70%
29	GO_REGULATION_OF_CELL_ADHESION	105	0.344	3.3811	0	0	0	465	tags=77%, list=48%, signal=132%
30	GO_RESPONSE_TO_BACTERIUM	66	0.402	3.358	0	0	0	521	tags=91%, list=53%, signal=182%
31	GO_CELL_CHEMOTAXIS	37	0.509	3.3411	0	0	0	451	tags=95%, list=46%, signal=169%
32	GO_REGULATION_OF_LEUKOCYTE_PROLIFERATION	43	0.485	3.3192	0	0	0	389	tags=84%, list=40%, signal=133%
33	GO_T_CELL_RECEPTOR_SIGNALING_PATHWAY	36	0.506	3.2995	0	0	0	386	tags=86%, list=40%, signal=137%
34	GO_SIGNALING_RECEPTOR_ACTIVITY	100	0.337	3.2908	0	0	0	545	tags=86%, list=56%, signal=175%
35	GO_MHC_PROTEIN_COMPLEX	15	0.762	3.2703	0	0	0	242	tags=100%, list=25%, signal=131%
36	GO_EXTRACELLULAR_SPACE	93	0.345	3.262	0	0	0	415	tags=71%, list=43%, signal=112%
37	GO_RESPONSE_TO_VIRUS	42	0.463	3.2268	0	0	0	243	tags=62%, list=25%, signal=79%
38	GO_LEUKOCYTE_ACTIVATION	88	0.348	3.2232	0	0	0	556	tags=89%, list=57%, signal=188%
39	GO_POSITIVE_REGULATION_OF_CELL_CELL_ADHESION	63	0.402	3.1982	0	0	0	362	tags=71%, list=37%, signal=106%
40	GO_RECEPTOR_ACTIVITY	121	0.317	3.1897	0	0	0	558	tags=85%, list=57%, signal=175%
41	GO_LEUKOCYTE_MIGRATION	54	0.416	3.1618	0	0	0	374	tags=74%, list=38%, signal=114%
42	GO_HUMORAL_IMMUNE_RESPONSE	29	0.531	3.1483	0	0	0	161	tags=59%, list=17%, signal=68%
43	GO_BIOLOGICAL_ADHESION	118	0.308	3.1384	0	0	0	551	tags=85%, list=57%, signal=171%
44	GO_CHEMOKINE_RECEPTOR_BINDING	16	0.675	3.1372	0	0	0	195	tags=81%, list=20%, signal=100%
45	GO_REGULATION_OF_RESPONSE_TO_EXTERNAL_STIMULUS	100	0.324	3.0977	0	0	0	403	tags=68%, list=41%, signal=104%
46	GO_SIGNAL_TRANSDUCER_ACTIVITY	136	0.285	3.0737	0	0	0	514	tags=76%, list=53%, signal=139%
47	GO_POSITIVE_REGULATION_OF_RESPONSE_TO_EXTERNAL_STIMULUS	46	0.43	3.0582	0	0	0	387	tags=78%, list=40%, signal=124%

48	GO_DEFENSE_RESPONSE_TO_OTHER_ORGANISM	56	0.392	3.056	0	0	0	400	tags=73%, list=41%, signal=117%
49	GO_SINGLE_ORGANISM_CELL_ADHESION	77	0.343	3.0536	0	0	0	454	tags=78%, list=47%, signal=134%
50	GO_CELL_ACTIVATION	107	0.316	3.0494	0	0	0	556	tags=85%, list=57%, signal=176%
51	GO_ENDOCYTOSIS	63	0.376	3.0311	0	0	0	343	tags=67%, list=35%, signal=96%
52	GO_INTERFERON_GAMMA_MEDIATED_SIGNALING_PATHWAY	22	0.588	3.0259	0	0	0	242	tags=77%, list=25%, signal=100%
53	GO_LYMPHOCYTE_MEDIATED_IMMUNITY	31	0.503	3.0231	0	0	0	254	tags=68%, list=26%, signal=89%
54	GO_POSITIVE_REGULATION_OF_CELL_ADHESION	78	0.345	3.0112	0	0	0	349	tags=64%, list=36%, signal=92%
55	GO_INTRINSIC_COMPONENT_OF_PLASMA_MEMBRANE	139	0.279	3.009	0	0	0	551	tags=81%, list=57%, signal=160%
56	GO_LYMPHOCYTE_COSTIMULATION	25	0.553	3.005	0	0	0	259	tags=76%, list=27%, signal=101%
57	GO_ANTIGEN_PROCESSING_AND_PRESENTATION_OF_PEPTIDE_OR_POLYSACCHARIDE_ANTIGEN_VIA_MHC_CLASS_II	17	0.648	2.9933	0	0	0	161	tags=75%, list=47%, signal=90%
58	GO_POSITIVE_REGULATION_OF_INTRACELLULAR_SIGNAL_TRANSDUCTION	88	0.322	2.9906	0	0	0	462	tags=76%, list=17%, signal=90%
59	GO_LEUKOCYTE_CHEMOTAXIS	29	0.515	2.9811	0	0	0	374	tags=75%, list=47%, signal=130%
60	GO_LEUKOCYTE_MEDIATED_IMMUNITY	34	0.479	2.9772	0	0	0	367	tags=86%, list=38%, signal=136%
61	GO_CELL_SURFACE	95	0.314	2.96	0	0	0	289	tags=79%, list=38%, signal=123%
62	GO_LEUKOCYTE_CELL_CELL_ADHESION	59	0.375	2.96	0	0	0	477	tags=53%, list=30%, signal=68%
63	GO_CELL_CELL_ADHESION	78	0.334	2.9379	0	0	0	477	tags=83%, list=49%, signal=153%
64	GO_REGULATION_OF_LEUKOCYTE_CHEMOTAXIS	31	0.491	2.9359	0	0	0	222	tags=79%, list=49%, signal=143%
65	GO_POSITIVE_REGULATION_OF_LEUKOCYTE_CHEMOTAXIS	28	0.506	2.9349	0	0	0	144	tags=65%, list=23%, signal=81%
66	GO_REGULATION_OF_T_CELL_PROLIFERATION	32	0.493	2.9307	0	0	0	386	tags=57%, list=15%, signal=65%
67	GO_RESPONSE_TO_MOLECULE_OF_BACTERIAL_ORIGIN	44	0.414	2.9254	0	0	0	521	tags=84%, list=40%, signal=135%



68	GO_EXTERNAL_SIDE_OF_PLASMA_MEMBRANE	51	0.393	2.9104	0	0	0	283	tags=59%, list=29%, signal=79%
69	GO_ANTIGEN_PROCESSING_AND_PRESENTATION_OF_PEPTIDE_ANTIGEN	29	0.494	2.8993	0	0	0	161	tags=59%, list=17%, signal=68%
70	GO_LYMPHOCYTE_ACTIVATION	79	0.33	2.8973	0	0	0	556	tags=87%, list=57%, signal=187%
71	GO_REGULATION_OF_CHEMOTAXIS	35	0.452	2.8833	0	#####	0.002	291	tags=69%, list=30%, signal=94%
72	GO_ANTIGEN_PROCESSING_AND_PRESENTATION	32	0.478	2.8735	0	#####	0.002	161	tags=56%, list=17%, signal=65%
73	GO_DEFENSE_RESPONSE_TO_VIRUS	28	0.511	2.8629	0	#####	0.002	243	tags=68%, list=25%, signal=88%
74	GO_ADAPTIVE_IMMUNE_RESPONSE_BASED_ON_SOMATIC_RECOMBINATION_OF_IMMUNE_RECEPTORS_BUILT_FROM_IMMUNOGLOBULIN_SUPERFAMILY_DOMAINS	32	0.476	2.8601	0	#####	0.002	166	tags=53%, list=17%, signal=62%
75	GO_CYTOKINE_ACTIVITY	23	0.529	2.8591	0	#####	0.002	195	tags=65%, list=20%, signal=80%
76	GO_G_PROTEIN_COUPLED_RECEPTOR_SIGNALING_PATHWAY	58	0.375	2.8564	0	#####	0.002	514	tags=88%, list=53%, signal=175%
77	GO_POSITIVE_REGULATION_OF_CHEMOTAXIS	29	0.489	2.8228	0	#####	0.003	144	tags=55%, list=15%, signal=63%
78	GO_REGULATION_OF_LEUKOCYTE_APOPTOTIC_PROCESS	19	0.568	2.7898	0	#####	0.006	348	tags=89%, list=36%, signal=136%
79	GO_CELL_MOTILITY	92	0.299	2.7807	0	#####	0.007	462	tags=73%, list=47%, signal=125%
80	GO_B_CELL_MEDIATED_IMMUNITY	20	0.557	2.7793	0	#####	0.007	227	tags=70%, list=23%, signal=89%
81	GO_REGULATION_OF_LEUKOCYTE_MIGRATION	39	0.418	2.7713	0	#####	0.007	222	tags=56%, list=23%, signal=70%
82	GO_TAXIS	62	0.348	2.7639	0	#####	0.007	514	tags=84%, list=53%, signal=166%
83	GO_POSITIVE_REGULATION_OF_LEUKOCYTE_MIGRATION	32	0.445	2.7453	0	#####	0.008	222	tags=59%, list=23%, signal=74%
84	GO_CHEMOKINE_MEDIATED_SIGNALING_PATHWAY	21	0.541	2.7216	0	#####	0.011	207	tags=67%, list=21%, signal=83%
85	GO_G_PROTEIN_COUPLED_RECEPTOR_BINDING	27	0.479	2.7097	0	#####	0.014	232	tags=63%, list=24%, signal=80%
86	GO_REGULATION_OF_SEQUESTERING_OF_CALCIIUM_ION	16	0.601	2.699	0	#####	0.016	256	tags=81%, list=26%, signal=108%
87	GO_NEGATIVE_REGULATION_OF_MULTIOrganism PROCESS	15	0.61	2.6962	0.002	#####	0.016	181	tags=73%, list=19%, signal=89%

88	GO_PHAGOCYTOSIS	37	0.429	2.685	0	#### #	0.018	370	tags=76%, list=38%, signal=117%
89	GO_NEGATIVE_REGULATION_OF_CELL_ADHESION	30	0.444	2.6736	0	#### #	0.019	435	tags=87%, list=45%, signal=152%
90	GO_T_CELL_DIFFERENTIATION	32	0.438	2.6719	0	#### #	0.02	451	tags=88%, list=46%, signal=158%
91	GO_RECEPTOR_BINDING	128	0.247	2.6364	0	#### #	0.024	561	tags=78%, list=58%, signal=160%
92	GO_GLYCOSAMINOGLYCAN_BINDING	27	0.47	2.6204	0	#### #	0.026	408	tags=85%, list=42%, signal=143%
93	GO_CELLULAR_RESPONSE_TO_ORGANIC_SUBSTANCE	195	0.22	2.6179	0	#### #	0.026	237	tags=38%, list=24%, signal=40%
94	GO_NEGATIVE_REGULATION_OF_IMMUNE_SYSTEM_PROCESS	55	0.338	2.6145	0	#### #	0.027	526	tags=85%, list=54%, signal=175%
95	GO_VESICLE_MEDIATED_TRANSPORT	100	0.272	2.6079	0	#### #	0.028	343	tags=56%, list=35%, signal=78%
96	GO_POSITIVE_REGULATION_OF_T_CELL_PROLIFERATION	24	0.467	2.6021	0.0019	#### #	0.028	465	tags=92%, list=48%, signal=171%
97	GO_NEGATIVE_REGULATION_OF_CELL_ACTIVATION	25	0.463	2.6018	0	#### #	0.028	435	tags=88%, list=45%, signal=155%
98	GO_PLASMA_MEMBRANE_PROTEIN_COMPLEX	50	0.353	2.5881	0	#### #	0.029	283	tags=58%, list=29%, signal=78%
99	GO_ENDOCYTOTIC_VESICLE_MEMBRANE	22	0.501	2.5859	0	#### #	0.03	161	tags=59%, list=17%, signal=69%
100	GO_NEGATIVE_REGULATION_OF_CELL_CELL_ADHESION	20	0.522	2.5726	0	#### #	0.033	435	tags=95%, list=45%, signal=168%
101	GO_REGULATION_OF_ERK1_AND_ERK2_CASCADE	26	0.456	2.5623	0	#### #	0.039	348	tags=77%, list=36%, signal=116%
102	GO_REGULATION_OF_CELL_PROLIFERATION	158	0.225	2.5612	0	#### #	0.039	456	tags=65%, list=47%, signal=102%
103	GO_LYMPHOCYTE_MIGRATION	16	0.556	2.5274	0	#### #	0.044	348	tags=88%, list=36%, signal=134%
104	GO_ENDOPEPTIDASE_ACTIVITY	22	0.483	2.5243	0	#### #	0.047	273	tags=68%, list=28%, signal=93%
105	GO_LOCOMOTION	122	0.242	2.5197	0	#### #	0.051	467	tags=67%, list=48%, signal=113%
106	GO_REGULATION_OF_DEFENSE_RESPONSE	97	0.263	2.5007	0	#### #	0.056	546	tags=79%, list=56%, signal=163%
107	GO_REGULATION_OF_INTERFERON_GAMMA_PRODUCTION	21	0.482	2.488	0	#### #	0.06	161	tags=57%, list=17%, signal=67%

108	GO_REGULATION_OF_CYTOKINE _PRODUCTION	93	0.263	2.4836	0	#### #	0.065	514	tags=75%, list=53%, signal=144%
109	GO_POSITIVE_REGULATION_OF_ LEUKOCYTE_PROLIFERATION	29	0.424	2.4761	0	#### #	0.074	515	tags=93%, list=53%, signal=192%
110	GO_MYELOID_LEUKOCYTE_MIG RATION	19	0.515	2.4703	0	#### #	0.074	348	tags=84%, list=36%, signal=128%
111	GO_TRANSPORT_VESICLE_MEMB RANE	16	0.541	2.4577	0	#### #	0.083	242	tags=75%, list=25%, signal=98%
112	GO_HEPARIN_BINDING	20	0.499	2.4347	0	#### #	0.097	174	tags=60%, list=18%, signal=72%
113	GO_B_CELL_RECEPTOR_SIGNALI NG_PATHWAY	19	0.495	2.4327	0	#### #	0.098	338	tags=79%, list=35%, signal=119%
114	GO_REGULATION_OF_LYMPHOC YTE_MIGRATION	15	0.554	2.429	0	#### #	0.1	137	tags=60%, list=14%, signal=69%
115	GO_AMIDE_BINDING	33	0.392	2.4247	0	#### #	0.103	187	tags=52%, list=19%, signal=62%
116	GO_RESPONSE_TO_TUMOR_NECR OSIS_FACTOR	30	0.404	2.4101	0	0.001	0.116	284	tags=63%, list=29%, signal=87%
117	GO_REGULATION_OF_LEUKOCYT E_DIFFERENTIATION	46	0.334	2.4101	0	0.001	0.116	567	tags=91%, list=58%, signal=208%
118	GO_RESPONSE_TO_INTERLEUKIN _1	19	0.491	2.393	0	0.001	0.132	284	tags=74%, list=29%, signal=102%
119	GO_COATED_VESICLE_MEMBRA NE	17	0.514	2.3908	0.0019	0.001	0.134	242	tags=71%, list=25%, signal=92%
120	GO_LYTIC_VACUOLE	54	0.316	2.3841	0	0.001	0.143	377	tags=69%, list=39%, signal=106%
121	GO_POSITIVE_REGULATION_OF_ ERK1_AND_ERK2_CASCADE	22	0.458	2.3709	0	0.001	0.153	384	tags=82%, list=39%, signal=132%
122	GO_REGULATION_OF_CYTOSOLI C_CALCIUM_ION_CONCENTRATI ON	22	0.46	2.363	0.0039	0.002	0.165	266	tags=68%, list=27%, signal=92%
123	GO_REGULATION_OF_RESPONSE _TO_WOUNDING	50	0.32	2.3601	0	0.002	0.168	361	tags=66%, list=37%, signal=99%
124	GO_PROTEIN_ACTIVATION_CASC ADE	15	0.534	2.3591	0	0.002	0.169	327	tags=80%, list=34%, signal=119%
125	GO_REGULATION_OF_TUMOR_NE CROSIS_FACTOR_SUPERFAMILY_ CYTOKINE_PRODUCTION	20	0.469	2.3537	0	0.002	0.175	400	tags=85%, list=41%, signal=141%
126	GO_REGULATION_OF_IMMUNE_E FFECTOR_PROCESS	60	0.294	2.3513	0	0.002	0.178	563	tags=85%, list=58%, signal=189%
127	GO_CALCIUM_ION_TRANSPORT	23	0.458	2.3501	0	0.002	0.178	348	tags=78%, list=36%, signal=119%

128	GO_CELLULAR_RESPONSE_TO_INTERLEUKIN_1	16	0.522	2.3496	0	0.002	0.179	214	tags=69%, list=22%, signal=87%
129	GO_REGULATION_OF_CYTOKINE_SECRETION	29	0.404	2.3455	0.0018	0.002	0.184	563	tags=97%, list=58%, signal=222%
130	GO_DIVALENT_INORGANIC_CATION_HOMEOSTASIS	32	0.387	2.3276	0.0018	0.002	0.206	266	tags=59%, list=27%, signal=79%
131	GO_NEGATIVE_REGULATION_OF_HOMEOSTATIC_PROCESS	20	0.467	2.3147	0	0.002	0.232	360	tags=80%, list=37%, signal=124%
132	GO_POSITIVE_REGULATION_OF_DEFENSE_RESPONSE	58	0.288	2.3034	0	0.002	0.248	546	tags=83%, list=56%, signal=177%
133	GO_NEGATIVE_REGULATION_OF_CELL_PROLIFERATION	59	0.282	2.2874	0.0017	0.003	0.273	407	tags=68%, list=42%, signal=109%
134	GO_POSITIVE_REGULATION_OF_CELL_COMMUNICATION	134	0.213	2.2837	0	0.003	0.275	462	tags=64%, list=47%, signal=105%
135	GO_REGULATION_OF_I_KAPPA_B_KINASE_NF_KAPPA_B_SIGNALING	29	0.387	2.2735	0	0.003	0.306	420	tags=79%, list=43%, signal=135%
136	GO_TRANS_GOLGI_NETWORK	18	0.485	2.262	0	0.003	0.32	178	tags=61%, list=18%, signal=73%
137	GO_MEMBRANE_MICRODOMAIN	34	0.35	2.2612	0	0.003	0.32	455	tags=79%, list=47%, signal=144%
138	GO_CYTOKINE_RECEPTOR_BINDING	34	0.358	2.2478	0	0.003	0.347	195	tags=47%, list=20%, signal=57%
139	GO_POSITIVE_REGULATION_OF_RESPONSE_TO_WOUNDING	24	0.414	2.2459	0.0019	0.003	0.354	387	tags=79%, list=40%, signal=128%
140	GO_REGULATION_OF_CELLULAR_COMPONENT_MOVEMENT	88	0.251	2.2427	0	0.003	0.358	300	tags=49%, list=31%, signal=64%
141	GO_POSITIVE_REGULATION_OF_LEUKOCYTE_DIFFERENTIATION	31	0.369	2.2412	0	0.003	0.362	362	tags=71%, list=37%, signal=109%
142	GO_NEGATIVE_REGULATION_OF_HOMOTYPIC_CELL_CELL_ADHESION	15	0.508	2.2391	0	0.003	0.367	486	tags=100%, list=50%, signal=197%
143	GO_POSITIVE_REGULATION_OF_MAPK_CASCADE	48	0.312	2.2339	0.0017	0.004	0.383	462	tags=75%, list=47%, signal=136%
144	GO_SULFUR_COMPOUND_BINDING	28	0.384	2.2266	0.0038	0.004	0.407	174	tags=50%, list=18%, signal=59%
145	GO_LYTIC_VACUOLE_MEMBRANE	26	0.392	2.219	0.0056	0.004	0.432	161	tags=50%, list=17%, signal=58%
146	GO_PLATELET_ACTIVATION	23	0.414	2.211	0.0018	0.004	0.452	451	tags=87%, list=46%, signal=158%
147	GO_SECRETION_BY_CELL	45	0.309	2.2093	0.0019	0.004	0.457	367	tags=64%, list=38%, signal=99%

148	GO_REGULATION_OF_ION_HOMEOSTASIS	25	0.398	2.2089	0.0019	0.004	0.457	167	tags=48%, list=17%, signal=56%
149	GO_LYMPHOCYTE_DIFFERENTIATION	45	0.312	2.2073	0.0018	0.004	0.458	552	tags=87%, list=57%, signal=191%
150	GO_REGULATION_OF_LYMPHOCYTE_DIFFERENTIATION	31	0.373	2.204	0.0018	0.004	0.465	486	tags=87%, list=50%, signal=168%
151	GO_DIVALENT_INORGANIC_CATION_TRANSPORT	25	0.399	2.1988	0	0.005	0.48	348	tags=72%, list=36%, signal=109%
152	GO_REGULATION_OF_INTRACELLULAR_SIGNAL_TRANSDUCTION	143	0.202	2.1969	0.0016	0.005	0.483	470	tags=64%, list=48%, signal=106%
153	GO_ENDOSOMAL_PART	34	0.352	2.1923	0.0018	0.005	0.491	161	tags=44%, list=17%, signal=51%
154	GO_NEGATIVE_REGULATION_OF_CYTOKINE_PRODUCTION	34	0.348	2.1849	0.0018	0.005	0.51	489	tags=82%, list=50%, signal=160%
155	GO_REGULATION_OF_ALPHA_BETA_T_CELL_ACTIVATION	19	0.437	2.1775	0.002	0.005	0.529	556	tags=100%, list=57%, signal=228%
156	GO_ORGANELLE_SUBCOMPARTMENT	22	0.42	2.1707	0.0019	0.005	0.546	179	tags=55%, list=18%, signal=65%
157	GO_PEPTIDASE_ACTIVITY	38	0.326	2.1672	0	0.006	0.554	273	tags=53%, list=28%, signal=70%
158	GO_POSITIVE_REGULATION_OF_TRANSPORT	86	0.233	2.1594	0.0018	0.006	0.571	243	tags=42%, list=25%, signal=51%
159	GO_REGULATION_OF_INNATE_IMMUNE_RESPONSE	52	0.289	2.1372	0.0018	0.007	0.623	546	tags=83%, list=56%, signal=178%
160	GO_SERINE_HYDROLASE_ACTIVITY	17	0.464	2.1266	0.0037	0.007	0.655	271	tags=65%, list=28%, signal=88%
161	GO_REGULATION_OF_HOMEOSTATIC_PROCESS	59	0.273	2.1243	0.0018	0.007	0.658	167	tags=36%, list=17%, signal=40%
162	GO_POSITIVE_REGULATION_OF_IKAPPA_KINASE_NFKAPPA_SIGNALING	25	0.389	2.1202	0.0018	0.007	0.672	420	tags=80%, list=43%, signal=137%
163	GO_REGULATION_OF_CALCIIUM_ION_TRANSPORT	24	0.403	2.1174	0.0036	0.007	0.676	289	tags=63%, list=30%, signal=87%
164	GO_FC_RECEPTOR_SIGNALING_PATHWAY	29	0.362	2.1158	0.0036	0.007	0.676	602	tags=97%, list=62%, signal=245%
165	GO_TRANSPORT_VESICLE	21	0.423	2.1122	0.0018	0.008	0.684	242	tags=62%, list=25%, signal=81%
166	GO GRANULOCYTE MIGRATION	15	0.481	2.1115	0.0056	0.008	0.684	343	tags=80%, list=35%, signal=122%
167	GO_CELL_RECOGNITION	23	0.394	2.1094	0.0019	0.008	0.686	210	tags=52%, list=22%, signal=65%

168	GO_REGULATION_OF_INFLAMMATORY_RESPONSE	38	0.319	2.1019	0.0018	0.008	0.7	361	tags=66%, list=37%, signal=100%
169	GO_IMMUNE_SYSTEM_DEVELOPMENT	90	0.225	2.0942	0.0017	0.008	0.721	405	tags=60%, list=42%, signal=93%
170	GO_ENDOSOME	59	0.273	2.09	0.0018	0.009	0.734	287	tags=51%, list=29%, signal=68%
171	GO_POSITIVE_REGULATION_OF_LOCOMOTION	53	0.283	2.086	0.0018	0.009	0.744	172	tags=38%, list=18%, signal=43%
172	GO_REGULATION_OF_HEMOPOIESIS	54	0.275	2.084	0.0034	0.009	0.748	567	tags=85%, list=58%, signal=193%
173	GO_REGULATION_OF_MAPK_CASCADE	61	0.261	2.0832	0.0018	0.009	0.748	462	tags=70%, list=47%, signal=126%
174	GO_INTRINSIC_COMPONENT_OF_ENDOPLASMIC_RETICULUM_MEMBRANE	23	0.396	2.0816	0.0073	0.009	0.752	75	tags=39%, list=8%, signal=41%
175	GO_MOVEMENT_OF_CELL_OR_SUBCELLULAR_COMPONENT	120	0.201	2.0731	0.0018	0.009	0.776	462	tags=64%, list=47%, signal=107%
176	GO_REGULATION_OF_B_CELL_ACTIVATION	25	0.373	2.0695	0.0071	0.009	0.783	389	tags=72%, list=40%, signal=117%
177	GO_CELLULAR_DEFENSE_RESPONSE	15	0.466	2.0629	0.0018	0.01	0.798	526	tags=100%, list=54%, signal=214%
178	GO_ALPHA_BETA_T_CELL_ACTIVATION	16	0.451	2.0567	0.0019	0.01	0.813	541	tags=100%, list=56%, signal=221%
179	GO_T_CELL_SELECTION	16	0.451	2.0464	0.0019	0.011	0.831	541	tags=100%, list=57%, signal=229%
180	GO_MYELOID_LEUKOCYTE_ACTIVATION	18	0.436	2.0429	0.0053	0.011	0.84	556	tags=38%, list=6%, signal=40%
181	GO_COATED_VESICLE	21	0.406	2.0322	0	0.012	0.857	55	tags=52%, list=20%, signal=64%
182	GO_REGULATION_OF_SYMBIOSIS_ENCOMPASSING_MUTUALISM_THROUGH_PARASITISM	23	0.379	2.0294	0.0059	0.012	0.863	198	tags=92%, list=57%, signal=209%
183	GO_CELL_ACTIVATION_INVOLVED_IN_IMMUNE_RESPONSE	25	0.361	2.023	0.0075	0.012	0.866	556	tags=81%, list=39%, signal=131%
184	GO_NEGATIVE_REGULATION_OF_IMMUNE_RESPONSE	16	0.45	2.0169	0.0039	0.013	0.875	380	tags=83%, list=59%, signal=194%
185	GO_REGULATION_OF_GTPASE_ACTIVITY	54	0.257	2.0124	0	0.013	0.881	578	tags=68%, list=30%, signal=96%
186	GO_REGULATION_OF_CELL_SHAPE	19	0.407	2.0098	0.0056	0.013	0.885	291	tags=54%, list=25%, signal=70%
187	GO_INTRINSIC_COMPONENT_OF_ORGANELLE_MEMBRANE	26	0.355	2.0079	0.0129	0.013	0.887	242	

188	GO_EXOCYTOSIS	25	0.373	2.0078	0.0093	0.013	0.887	367	tags=72%, list=38%, signal=113%
189	GO_REGULATION_OF_CELL_KILLING	16	0.446	2.0051	0.0076	0.013	0.89	546	tags=100%, list=56%, signal=224%
190	GO_POSITIVE_REGULATION_OF_LYMPHOCYTE_DIFFERENTIATION	25	0.365	2.0017	0.0056	0.013	0.893	362	tags=72%, list=37%, signal=112%
191	GO_DEFENSE_RESPONSE_TO_BACTERIUM	24	0.371	1.9997	0.0054	0.013	0.898	125	tags=38%, list=13%, signal=42%
192	GO_REGULATION_OF_ANATOMICAL_STRUCTURE_MORPHOGENESIS	83	0.221	1.992	0.0034	0.014	0.908	345	tags=52%, list=35%, signal=73%
193	GO_POSITIVE_REGULATION_OF_ION_TRANSPORT	19	0.417	1.9906	0.0056	0.014	0.909	111	tags=42%, list=11%, signal=47%
194	GO_ENDOCYTIC_VESICLE	35	0.309	1.9745	0.0017	0.015	0.924	161	tags=40%, list=17%, signal=46%
195	GO_REGULATION_OF_LEUKOCYTE_MEDIATED_CYTOTOXICITY	15	0.445	1.974	0.0019	0.015	0.924	546	tags=100%, list=56%, signal=224%
196	GO_REGULATION_OF_MULTICELLULAR_ORGANISM_PROCESS	46	0.282	1.9664	0.007	0.016	0.932	243	tags=48%, list=25%, signal=61%
197	GO_VESICLE_MEMBRANE	36	0.313	1.9661	0.009	0.016	0.932	242	tags=50%, list=25%, signal=64%
198	GO_POSITIVE_REGULATION_OF_HEMOPOIESIS	34	0.314	1.9594	0	0.017	0.942	362	tags=65%, list=37%, signal=99%
199	GO_LATE_ENDOSOME	20	0.395	1.9503	0.0018	0.017	0.955	287	tags=65%, list=29%, signal=90%
200	GO_VACUOLE	91	0.208	1.9458	0.0084	0.018	0.957	387	tags=57%, list=40%, signal=86%
201	GO_MHC_PROTEIN_BINDING	15	0.435	1.9444	0.0118	0.018	0.958	556	tags=100%, list=57%, signal=86%
202	GO_MEMBRANE_PROTEIN_COMPLEX	67	0.231	1.9437	0.0051	0.018	0.958	161	tags=100%, list=33%, signal=37%
203	GO_POSITIVE_REGULATION_OF_PROTEIN_SECRETION	26	0.339	1.9361	0.0122	0.019	0.965	256	tags=54%, list=26%, signal=71%
204	GO_FC_GAMMA_RECEPTOR_SIGNALING_PATHWAY	19	0.388	1.9229	0.004	0.02	0.974	602	tags=100%, list=62%, signal=257%
205	GO_PEPTIDYL_TYROSINE_MODIFICATION	24	0.363	1.9228	0.0072	0.02	0.974	470	tags=83%, list=48%, signal=157%
206	GO_CYTOKINE_PRODUCTION	23	0.36	1.9168	0.0039	0.021	0.978	546	tags=91%, list=56%, signal=203%
207	GO_POSITIVE_REGULATION_OF_INFLAMMATORY_RESPONSE	18	0.396	1.904	0.0095	0.022	0.985	387	tags=78%, list=40%, signal=127%

208	GO_REGULATION_OF_T_CELL_DIFFERENTIATION	23	0.361	1.8926	0.0161	0.024	0.989	486	tags=87%, list=50%, signal=169%
209	GO_POSITIVE_REGULATION_OF_CYTOKINE_PRODUCTION	66	0.235	1.885	0.0083	0.025	0.991	392	tags=59%, list=40%, signal=92%
210	GO_HEMOSTASIS	36	0.286	1.8824	0.0091	0.025	0.991	616	tags=92%, list=63%, signal=240%
211	GO_CELLULAR_CHEMICAL_HOMEOSTASIS	51	0.253	1.8796	0.0054	0.025	0.992	270	tags=47%, list=28%, signal=62%
212	GO_REGULATION_OF_PHOSPHATIDYLINOSITOL_3_KINASE_SIGNALING	20	0.384	1.8789	0.006	0.025	0.992	470	tags=85%, list=48%, signal=161%
213	GO_POSITIVE_REGULATION_OF_INNATE_IMMUNE_RESPONSE	40	0.278	1.8743	0.0053	0.026	0.993	713	tags=100%, list=73%, signal=358%
214	GO_NEGATIVE_REGULATION_OF_RESPONSE_TO_STIMULUS	104	0.186	1.8736	0.0152	0.026	0.993	360	tags=52%, list=37%, signal=74%
215	GO_POSITIVE_REGULATION_OF_ALPHA_BETA_T_CELL_ACTIVATION	15	0.435	1.8726	0.0058	0.026	0.993	556	tags=100%, list=57%, signal=229%
216	GO_REGULATION_OF_HYDROLASE_ACTIVITY	106	0.187	1.8643	0.0049	0.027	0.995	299	tags=44%, list=31%, signal=57%
217	GO_CELL_DEATH	86	0.202	1.8622	0.0107	0.027	0.995	267	tags=44%, list=27%, signal=55%
218	GO_REGULATION_OF_PROTEIN_SECRETION	44	0.262	1.8607	0.0085	0.028	0.996	256	tags=45%, list=26%, signal=59%
219	GO_GOLGI_APPARATUS_PART	51	0.247	1.8445	0.0113	0.03	0.997	179	tags=37%, list=18%, signal=43%
220	GO_POSITIVE_REGULATION_OF_HYDROLASE_ACTIVITY	82	0.205	1.8392	0.0051	0.031	0.998	578	tags=78%, list=59%, signal=176%
221	GO_REGULATION_OF_METAL_ION_TRANSPORT	31	0.297	1.8381	0.0145	0.031	0.998	289	tags=52%, list=30%, signal=71%
222	GO_CELLULAR_RESPONSE_TO_BIOTIC_STIMULUS	30	0.305	1.8362	0.0224	0.031	0.998	521	tags=83%, list=53%, signal=174%
223	GO_POSITIVE_REGULATION_OF_CELL_PROLIFERATION	95	0.194	1.8349	0.0067	0.031	0.998	470	tags=64%, list=48%, signal=112%
224	GO_POSITIVE_REGULATION_OF_IMMUNE_EFFECTOR_PROCESS	33	0.291	1.8251	0.0177	0.033	1	556	tags=85%, list=57%, signal=191%
225	GO_NEGATIVE_REGULATION_OF_MULTICELLULAR_ORGANISMAL_PROCESS	98	0.188	1.8153	0.0139	0.035	1	567	tags=76%, list=58%, signal=163%
226	GO_LEUKOCYTE_PROLIFERATION	16	0.404	1.8105	0.0092	0.035	1	362	tags=75%, list=37%, signal=117%
227	GO_GOLGI_MEMBRANE	41	0.269	1.8091	0.0182	0.036	1	93	tags=29%, list=10%, signal=31%



228	GO_LEUKOCYTE_DIFFERENTIATION	63	0.219	1.8006	0.0052	0.037	1	564	tags=79%, list=58%, signal=176%
229	GO_POSITIVE_REGULATION_OF_CYTOKINE_SECRETION	16	0.395	1.7934	0.0236	0.039	1	595	tags=100%, list=61%, signal=253%
230	GO_REGULATION_OF_LEUKOCYTE_MEDIATED_IMMUNITY	32	0.291	1.7911	0.026	0.039	1	551	tags=84%, list=57%, signal=188%
231	GO_CYTOKINE_RECEPTOR_ACTIVITY	16	0.397	1.7873	0.0331	0.04	1	534	tags=94%, list=55%, signal=204%
232	GO_VACUOLAR_MEMBRANE	47	0.252	1.7849	0.0189	0.04	1	246	tags=45%, list=25%, signal=57%
233	GO_G_PROTEIN_COUPLED_RECEPTOR_ACTIVITY	27	0.318	1.7837	0.0212	0.04	1	514	tags=85%, list=53%, signal=175%
234	GO_VACUOLAR_PART	55	0.234	1.7782	0.0214	0.041	1	96	tags=27%, list=10%, signal=29%
235	GO_CYTOPLASMIC_SIDE_OF_MEMBRANE	17	0.37	1.765	0.0091	0.044	1	619	tags=100%, list=64%, signal=270%
236	GO_CYTOPLASMIC_VESICLE_PART	46	0.246	1.765	0.0173	0.044	1	161	tags=35%, list=17%, signal=40%
237	GO_CALCIIUM_ION_TRANSMEMBRANE_TRANSPORT	16	0.382	1.7568	0.0172	0.046	1	167	tags=50%, list=17%, signal=59%
238	GO_REGULATION_OF_SECRETION	64	0.215	1.7452	0.0189	0.049	1	358	tags=53%, list=37%, signal=78%
239	GO_CYTOKINE_BINDING	17	0.372	1.7403	0.0264	0.05	1	272	tags=59%, list=28%, signal=80%

<b>Negative DEGs enrichment results in the C5</b>									
<b>follow link to MSigDB</b>		<b>SIZE</b>	<b>ES</b>	<b>NES</b>	<b>NOM p-val</b>	<b>FDR q-val</b>	<b>FWER p-val</b>	<b>RANK AT MAX</b>	<b>LEADING EDGE</b>
1	GO_CELL_CYCLE_PROCESS	109	0.487	-5.233	0	0	0	412	tags=85%, list=42%, signal=131%
2	GO_CELL_CYCLE	124	0.455	-5.117	0	0	0	412	tags=81%, list=42%, signal=123%
3	GO_MITOTIC_CELL_CYCLE	87	0.522	-5.098	0	0	0	412	tags=90%, list=42%, signal=142%
4	GO_CHROMOSOME_ORGANIZATION	88	0.489	-4.722	0	0	0	396	tags=84%, list=41%, signal=129%
5	GO_CHROMOSOME	88	0.463	-4.585	0	0	0	436	tags=86%, list=45%, signal=142%
6	GO_DNA_METABOLIC_PROCESS	70	0.492	-4.37	0	0	0	415	tags=89%, list=43%, signal=143%

7	GO_ORGANELLE_FISSION	50	0.558	-4.362	0	0	0	404	tags=94%, list=41%, signal=152%
8	GO_CELL_DIVISION	53	0.541	-4.242	0	0	0	404	tags=92%, list=41%, signal=149%
9	GO_CHROMOSOMAL_REGION	40	0.578	-4.201	0	0	0	412	tags=98%, list=42%, signal=162%
10	GO_MITOTIC_NUCLEAR_DIVISION	44	0.567	-4.159	0	0	0	404	tags=95%, list=41%, signal=156%
11	GO_DNA_REPAIR	38	0.569	-3.922	0	0	0	391	tags=95%, list=40%, signal=152%
12	GO_CHROMOSOME_SEGREGATION	33	0.577	-3.778	0	0	0	302	tags=85%, list=31%, signal=119%
13	GO_SISTER_CHROMATID_SEGREGATION	30	0.591	-3.67	0	0	0	302	tags=87%, list=31%, signal=122%
14	GO_NUCLEAR_CHROMOSOME_SEGREGATION	32	0.571	-3.646	0	0	0	302	tags=84%, list=31%, signal=118%
15	GO_DNA_CONFORMATION_CHANGE	26	0.632	-3.609	0	0	0	302	tags=92%, list=31%, signal=130%
16	GO_CELLULAR_RESPONSE_TO_DNA_DAMAGE_STIMULUS	59	0.415	-3.486	0	0	0	412	tags=81%, list=42%, signal=132%
17	GO_POLY_A_RNA_BINDING	64	0.402	-3.459	0	0	0	422	tags=81%, list=43%, signal=134%
18	GO_MICROTUBULE_CYTOSKELETON	61	0.399	-3.429	0	0	0	400	tags=77%, list=41%, signal=123%
19	GO_CATALYTIC_COMPLEX	50	0.448	-3.428	0	0	0	373	tags=80%, list=38%, signal=123%
20	GO_CHROMOSOME_CENTROMERIC_REGION	20	0.661	-3.414	0	0	0	302	tags=95%, list=31%, signal=135%
21	GO_SPINDLE	31	0.539	-3.409	0	0	0	272	tags=77%, list=28%, signal=104%
22	GO_CELLULAR_RESPONSE_TO_STRESS	128	0.294	-3.36	0	0	0	391	tags=66%, list=40%, signal=95%
23	GO_CONDENSED_CHROMOSOME	24	0.596	-3.335	0	0	0	409	tags=100%, list=42%, signal=168%
24	GO_RNA_BINDING	92	0.324	-3.333	0	0	0	403	tags=71%, list=41%, signal=109%
25	GO_CELL_CYCLE_PHASE_TRANSITION	34	0.493	-3.313	0	0	0	224	tags=68%, list=23%, signal=85%
26	GO_TRANSFERASE_COMPLEX	38	-0.49	-3.294	0	0	0	391	tags=87%, list=40%, signal=139%

27	GO_MICROTUBULE_CYTOSKELETON_ORGANIZATION	25	0.568	-3.294	0	0	0	328	tags=88%, list=34%, signal=129%	
28	GO_DNA_REPLICATION	26	0.566	-3.284	0	0	0	407	tags=96%, list=42%, signal=161%	
29	GO_DNA_DEPENDENT_DNA_REPLICATION	18	0.656	-3.269	0	0	0	164	tags=78%, list=17%, signal=92%	
30	GO_MICROTUBULE_BASED_PROCESS	30	0.522	-3.241	0	0	0	328	tags=83%, list=34%, signal=122%	
31	GO_REGULATION_OF_MICROTUBULE_BASED_PROCESS	22	0.595	-3.233	0	0	0	328	tags=91%, list=34%, signal=134%	
32	GO_REGULATION_OF_MICROTUBULE_POLYMERIZATION_OR_DEPOLYMERIZATION	20	0.628	-3.155	0	0	0	328	tags=95%, list=34%, signal=140%	
33	GO_NUCLEAR_CHROMOSOME	49	0.414	-3.153	0	0	0	436	tags=84%, list=45%, signal=144%	
34	GO_NEGATIVE_REGULATION_OF_PROTEIN_COMPLEX_DISASSEMBLY	20	-0.58	-3.019	0	0	0	328	tags=90%, list=34%, signal=133%	
35	GO_REGULATION_OF_PROTEIN_COMPLEX_DISASSEMBLY	24	0.518	-2.927	0	0	0	328	tags=83%, list=34%, signal=123%	
36	GO_CELL_CYCLE_CHECKPOINT	24	0.512	-2.921	0	0	0	412	tags=92%, list=42%, signal=155%	
37	GO_SINGLE_ORGANISM_BIOSYNTHETIC_PROCESS	94	-0.29	-2.921	0	0	0	226	tags=46%, list=23%, signal=54%	
38	GO_REGULATION_OF_CELL_DIVISION	27	0.493	-2.912	0	0	0	308	tags=78%, list=32%, signal=111%	
39	GO_MITOTIC_SISTER_CHROMATID_SEGREGATION	16	0.623	-2.909	0	0	0	272	tags=88%, list=28%, signal=119%	
40	GO_DNA_PACKAGING	15	0.645	-2.883	0	#####	#	0.001	302	tags=93%, list=31%, signal=133%
41	GO_CHROMOSOME_TELOMERIC_REGION	21	0.544	-2.872	0	#####	#	0.001	412	tags=95%, list=42%, signal=161%
42	GO_REGULATION_OF_CELL_CYCLE	89	0.288	-2.824	0	#####	#	0.002	276	tags=52%, list=28%, signal=66%
43	GO_CELL_CYCLE_G1_S_PHASE_TRANSITION	20	0.546	-2.811	0	#####	#	0.002	200	tags=70%, list=21%, signal=86%
44	GO_REGULATION_OF_NUCLEAR_DIVISION	17	-0.57	-2.792	0	#####	#	0.002	271	tags=82%, list=28%, signal=112%
45	GO_STEROL_METABOLIC_PROCESS	15	0.616	-2.728	0	#####	#	0.002	216	tags=80%, list=22%, signal=101%
46	GO_DNA_RECOMBINATION	24	0.482	-2.726	0	#####	#	0.003	407	tags=88%, list=42%, signal=147%

47	GO_PROTEIN_FOLDING	16	-	0.577	-2.703	0	#### #	0.005	343	tags=94%, list=35%, signal=142%
48	GO_SMALL_MOLECULE_METABOLIC_PROCESS	119	-	-0.25	-2.693	0	#### #	0.005	226	tags=42%, list=23%, signal=48%
49	GO_LIPID_BIOSYNTHETIC_PROCESSES	44	-	0.359	-2.693	0	#### #	0.005	216	tags=52%, list=22%, signal=64%
50	GO_NEGATIVE_REGULATION_OF_ORGANELLE_ORGANIZATION	37	-	0.398	-2.692	0	#### #	0.005	328	tags=70%, list=34%, signal=102%
51	GO_PROTEIN_DNA_COMPLEX_SUBUNIT_ORGANIZATION	17	-	0.561	-2.657	0	#### #	0.009	381	tags=94%, list=39%, signal=152%
52	GO_REGULATION_OF_MITOTIC_CELL_CYCLE	48	-	0.347	-2.635	0	#### #	0.016	412	tags=75%, list=42%, signal=124%
53	GO_NEGATIVE_REGULATION_OF_MITOTIC_CELL_CYCLE	21	-	0.498	-2.598	0	#### #	0.019	412	tags=90%, list=42%, signal=153%
54	GO_MITOTIC_CELL_CYCLE_CHECKPOINT	18	-	0.531	-2.591	0	#### #	0.022	412	tags=94%, list=42%, signal=161%
55	GO_CHROMATIN_ORGANIZATION	37	-	0.387	-2.584	0	#### #	0.023	434	tags=81%, list=45%, signal=141%
56	GO_SISTER_CHROMATID_COHESION	16	-	0.545	-2.54	0	#### #	0.037	396	tags=94%, list=41%, signal=155%
57	GO_OXIDATION_REDUCTION_PROCESS	45	-	0.349	-2.536	0	#### #	0.037	247	tags=56%, list=25%, signal=71%
58	GO_CHROMATIN_MODIFICATION	35	-	0.375	-2.526	0	#### #	0.039	434	tags=80%, list=45%, signal=139%
59	GO_PEPTIDYL_LYSINE_MODIFICATION	25	-	0.435	-2.519	0	#### #	0.041	412	tags=84%, list=42%, signal=142%
60	GO_REGULATION_OF_CHROMOSOME_ORGANIZATION	26	-	-0.44	-2.518	0	#### #	0.041	454	tags=88%, list=47%, signal=161%
61	GO_NUCLEAR_CHROMOSOME_TELOMERIC_REGION	17	-	0.531	-2.514	0	#### #	0.043	412	tags=94%, list=42%, signal=160%
62	GO_NEGATIVE_REGULATION_OF_CYTOSKELETON_ORGANIZATION	23	-	0.459	-2.504	0	#### #	0.046	328	tags=78%, list=34%, signal=115%
63	GO_ENVELOPE	61	-	0.289	-2.491	0	#### #	0.052	386	tags=66%, list=40%, signal=102%
64	GO_MIDBODY	21	-	-0.47	-2.489	0.0021	#### #	0.053	272	tags=71%, list=28%, signal=97%
65	GO_ADENYL_NUCLEOTIDE_BINDING	120	-	0.226	-2.485	0	#### #	0.055	405	tags=60%, list=42%, signal=90%
66	GO_MICROTUBULE	26	-	0.432	-2.484	0	#### #	0.055	328	tags=73%, list=34%, signal=107%

67	GO_SPINDLE_POLE	16	0.539	-2.48	0	##### #	0.056	301	tags=81%, list=31%, signal=116%
68	GO_STEROID_METABOLIC_PROCESS	21	0.457	-2.464	0	##### #	0.065	231	tags=67%, list=24%, signal=86%
69	GO_LIPID_METABOLIC_PROCESS	79	0.264	-2.463	0	##### #	0.065	231	tags=44%, list=24%, signal=53%
70	GO_RESPONSE_TO_ENDOPLASMIC_RETICULUM_STRESS	16	0.522	-2.459	0	##### #	0.072	356	tags=88%, list=37%, signal=136%
71	GO_OXIDOREDUCTASE_ACTIVITY_ACTING_ON_PAIRED_DONORS_WITH_INCORPORATION_OR_REDUCTION_OF_MOLECULAR_OXYGEN	15	0.549	-2.452	0	0.001	0.077	157	tags=67%, list=16%, signal=78%
72	GO_MEIOTIC_CELL_CYCLE	15	-0.55	-2.443	0	0.001	0.086	391	tags=93%, list=40%, signal=154%
73	GO_RESPONSE_TO_TOPOLOGICALLY_INCORRECT_PROTEIN	15	0.534	-2.436	0	0.001	0.091	331	tags=87%, list=34%, signal=129%
74	GO_TELOMERE_ORGANIZATION	15	0.527	-2.392	0	0.002	0.126	407	tags=93%, list=42%, signal=158%
75	GO_NEGATIVE_REGULATION_OF_CELL_CYCLE	46	0.327	-2.364	0	0.002	0.16	412	tags=72%, list=42%, signal=118%
76	GO_REGULATION_OF_CELL_CYCLE_PROCESS	47	0.305	-2.35	0	0.002	0.183	276	tags=55%, list=28%, signal=73%
77	GO_CHROMATIN_REMODELING	15	0.516	-2.347	0	0.002	0.19	302	tags=80%, list=31%, signal=114%
78	GO_SMALL_MOLECULE_BIOSYNTHETIC_PROCESS	37	0.337	-2.312	0	0.003	0.233	216	tags=51%, list=22%, signal=63%
79	GO_CELLULAR_AMIDE_METABOLIC_PROCESS	37	0.343	-2.307	0	0.003	0.233	379	tags=70%, list=39%, signal=111%
80	GO_RIBONUCLEOTIDE_BINDING	134	0.204	-2.307	0	0.003	0.235	405	tags=58%, list=42%, signal=86%
81	GO_CYTOSKELETAL_PART	73	0.247	-2.294	0	0.003	0.253	272	tags=48%, list=28%, signal=62%
82	GO_HYDROLASE_ACTIVITY_ACTING_ON_ACID_ANHYDRIDES	51	0.294	-2.284	0	0.003	0.264	227	tags=49%, list=23%, signal=61%
83	GO_OXIDOREDUCTASE_ACTIVITY	39	0.326	-2.278	0	0.003	0.281	157	tags=44%, list=16%, signal=50%
84	GO_MICROTUBULE_ORGANIZING_CENTER	29	0.373	-2.274	0	0.004	0.29	400	tags=76%, list=41%, signal=125%
85	GO_PROTEIN_MODIFICATION_BY_SMALL_PROTEIN_CONJUGATION_OR_REMOVAL	43	0.307	-2.271	0	0.004	0.295	422	tags=74%, list=43%, signal=126%
86	GO_RIBONUCLEOPROTEIN_COMPLEX	26	0.382	-2.254	0	0.004	0.325	415	tags=81%, list=43%, signal=137%

87	GO_ALCOHOL_METABOLIC_PROCESS	32	-	0.353	-2.25	0	0.004	0.332	216	tags=53%, list=22%, signal=66%
88	GO_REGULATION_OF_DNA_METABOLIC_PROCESS	41	-	0.322	-2.221	0	0.005	0.402	449	tags=78%, list=46%, signal=139%
89	GO_ORGANONITROGEN_COMPOUND_METABOLIC_PROCESS	92	-	0.218	-2.191	0	0.006	0.455	297	tags=48%, list=30%, signal=62%
90	GO_POSITIVE_REGULATION_OF_DNA_METABOLIC_PROCESS	21	-	0.404	-2.154	0.0066	0.008	0.538	449	tags=86%, list=46%, signal=156%
91	GO_ORGANIC_HYDROXY_COMPOUND_BIOSYNTHETIC_PROCESS	15	-	0.482	-2.15	0.0021	0.008	0.551	216	tags=67%, list=22%, signal=84%
92	GO_COENZYME_METABOLIC_PROCESS	19	-	0.446	-2.142	0.0023	0.008	0.569	321	tags=74%, list=33%, signal=108%
93	GO_ORGANIC_HYDROXY_COMPOUND_METABOLIC_PROCESS	36	-	0.317	-2.139	0	0.008	0.577	216	tags=50%, list=22%, signal=62%
94	GO_NUCLEAR_ENVELOPE	40	-	0.306	-2.13	0.0046	0.009	0.596	347	tags=63%, list=36%, signal=93%
95	GO_CYTOSKELETON	110	-	0.197	-2.124	0	0.009	0.611	272	tags=43%, list=28%, signal=53%
96	GO_PROTEASOMAL_PROTEIN_CATABOLIC_PROCESS	18	-	0.434	-2.12	0.0021	0.009	0.618	292	tags=72%, list=30%, signal=101%
97	GO_MRNA_PROCESSING	15	-	0.472	-2.114	0.0021	0.009	0.635	458	tags=93%, list=47%, signal=173%
98	GO_CELLULAR_MODIFIED_AMINO_ACID_METABOLIC_PROCESS	17	-	0.425	-2.108	0.0066	0.01	0.645	188	tags=53%, list=19%, signal=64%
99	GO_CENTROSOME	24	-	0.372	-2.105	0.0043	0.01	0.651	391	tags=75%, list=40%, signal=122%
100	GO_PROTEIN_DNA_COMPLEX	15	-	0.468	-2.102	0	0.01	0.658	407	tags=87%, list=42%, signal=147%
101	GO_HELICASE_ACTIVITY	15	-	0.471	-2.101	0.0022	0.01	0.659	156	tags=60%, list=16%, signal=70%
102	GO_ATPASE_ACTIVITY	29	-	0.343	-2.093	0.0068	0.01	0.674	359	tags=69%, list=37%, signal=106%
103	GO_MRNA_METABOLIC_PROCESS	18	-	-0.43	-2.088	0.0021	0.01	0.688	403	tags=83%, list=41%, signal=140%
104	GO_CHROMATIN_BINDING	29	-	0.339	-2.085	0.0155	0.01	0.694	434	tags=76%, list=45%, signal=133%
105	GO_NEGATIVE_REGULATION_OF_CELL_CYCLE_PROCESS	21	-	0.398	-2.07	0.0044	0.011	0.737	412	tags=81%, list=42%, signal=137%
106	GO_CHROMATIN	33	-	0.321	-2.068	0	0.011	0.74	436	tags=76%, list=45%, signal=133%

107	GO_NUCLEOPLASM_PART	37	-	0.293	-2.066	0	0.011	0.743	412	tags=73%, list=42%, signal=122%
108	GO_POSITIVE_REGULATION_OF_CHROMOSOME_ORGANIZATION	16	-	0.447	-2.056	0.0042	0.012	0.769	434	tags=88%, list=45%, signal=155%
109	GO_DNA_INTEGRITY_CHECKPOINT	15	-	0.457	-2.056	0.008	0.012	0.771	412	tags=87%, list=42%, signal=148%
110	GO_REGULATION_OF_DNA_REPLICATION	18	-	0.424	-2.054	0.0022	0.012	0.778	412	tags=83%, list=42%, signal=142%
111	GO_TRANSFERASE_COMPLEX_TRANSFERRING_PHOSPHORUS_CONTAINING_GROUPS	17	-	0.432	-2.049	0.0044	0.012	0.79	391	tags=82%, list=40%, signal=135%
112	GO_REGULATION_OF_ORGANELLE_ORGANIZATION	95	-	0.201	-2.03	0.0023	0.014	0.831	331	tags=51%, list=34%, signal=69%
113	GO_REGULATION_OF_SIGNAL_TRANSDUCTION_BY_P53_CLASS_MEDIATOR	15	-	0.438	-2.02	0.0089	0.015	0.85	412	tags=87%, list=42%, signal=148%
114	GO_POSITIVE_REGULATION_OF_CELL_CYCLE	30	-	0.326	-1.985	0.0022	0.018	0.908	412	tags=73%, list=42%, signal=123%
115	GO_CYTOSKELETON_ORGANIZATION	61	-	0.241	-1.974	0.0024	0.019	0.915	279	tags=49%, list=29%, signal=65%
116	GO_COFACTOR_METABOLIC_PROCESS	22	-	0.356	-1.95	0.0067	0.022	0.934	99	tags=36%, list=10%, signal=40%
117	GO_NUCLEOLUS	48	-	0.251	-1.949	0.0113	0.022	0.935	412	tags=67%, list=42%, signal=110%
118	GO_REPRODUCTION	75	-	-0.21	-1.918	0.0072	0.026	0.961	244	tags=41%, list=25%, signal=51%
119	GO_CARBOHYDRATE_METABOLIC_PROCESS	38	-	0.277	-1.906	0.0073	0.028	0.968	406	tags=68%, list=42%, signal=113%
120	GO_SULFUR_COMPOUND_METABOLIC_PROCESS	28	-	0.317	-1.894	0.0089	0.029	0.974	99	tags=32%, list=10%, signal=35%
121	GO_PROTEIN_COMPLEX_SUBUNIT_ORGANIZATION	122	-	0.169	-1.887	0.0049	0.03	0.979	331	tags=48%, list=34%, signal=64%
122	GO_POSITIVE_REGULATION_OF_CELL_CYCLE_PROCESS	24	-	0.338	-1.886	0.0133	0.03	0.979	412	tags=75%, list=42%, signal=127%
123	GO_MITOCHONDRION	71	-	-0.21	-1.882	0.0069	0.03	0.98	386	tags=59%, list=40%, signal=91%
124	GO_ORGANIC_ACID_METABOLIC_PROCESS	66	-	0.216	-1.87	0.0068	0.032	0.982	162	tags=32%, list=17%, signal=36%
125	GO_NEGATIVE_REGULATION_OF_CELLULAR_COMPONENT_ORGANIZATION	58	-	0.227	-1.868	0.0066	0.032	0.983	328	tags=53%, list=34%, signal=76%
126	GO_ENDOPLASMIC_RETICULUM_LUMEN	15	-	0.407	-1.863	0.0043	0.033	0.985	267	tags=67%, list=27%, signal=90%

127	GO_RNA_PROCESSING	22	-	0.344	-1.852	0.0235	0.035	0.987	458	tags=82%, list=47%, signal=151%
128	GO_PROTEIN_CATABOLIC_PROCESS	32	-	0.282	-1.845	0.0066	0.036	0.987	316	tags=59%, list=32%, signal=85%
129	GO_ENDOPLASMIC_RETICULUM_PART	88	-	-0.19	-1.842	0.0141	0.036	0.987	267	tags=43%, list=27%, signal=54%
130	GO_ORGANELLE_ASSEMBLY	23	-	-0.33	-1.838	0.0199	0.037	0.988	299	tags=61%, list=31%, signal=86%
131	GO_IN_UTERO_EMBRYONIC_DEVELOPMENT	16	-	0.397	-1.837	0.0128	0.037	0.989	466	tags=88%, list=48%, signal=165%
132	GO_MONOCARBOXYLIC_ACID_METABOLIC_PROCESS	39	-	0.259	-1.836	0.0149	0.037	0.989	102	tags=28%, list=10%, signal=30%
133	GO_AMIDE_BIOSYNTHETIC_PROCESS	18	-	0.378	-1.827	0.0253	0.038	0.992	379	tags=78%, list=39%, signal=125%
134	GO_ENDOPLASMIC_RETICULUM_GO_EMBRYO_DEVELOPMENT_ENDING_IN_BIRTH_OR_EGG_HATCHING	109	-	0.168	-1.822	0.0162	0.039	0.993	257	tags=39%, list=26%, signal=48%
135		31	-	0.287	-1.817	0.0168	0.039	0.994	434	tags=71%, list=45%, signal=124%
136	GO_CELLULAR_COMPONENT_DISASSEMBLY	32	-	0.289	-1.814	0.0154	0.04	0.995	377	tags=66%, list=39%, signal=104%
137	GO_SEXUAL_REPRODUCTION	29	-	0.295	-1.801	0.013	0.042	0.998	404	tags=69%, list=41%, signal=114%
138	GO_ANCHORED_COMPONENT_OF_MEMBRANE	17	-	-0.37	-1.793	0.0195	0.044	0.998	43	tags=29%, list=4%, signal=30%
139	GO_MACROMOLECULE_CATABOLIC_PROCESS	44	-	0.242	-1.785	0.0115	0.045	0.998	292	tags=52%, list=30%, signal=71%
140	GO_CELLULAR_LIPID_METABOLIC_PROCESS	62	-	0.213	-1.778	0.0142	0.047	0.999	221	tags=39%, list=23%, signal=47%

Positive DEGs enrichment results in the C7									
follow link to MSigDB									
		SIZE	ES	NES	NOM p-val	FDR q-val	FWER p-val	RANK AT MAX	LEADING EDGE
1	GSE41176_UNSTIM_VS_ANTI_IGM_STIM_BCELL_1H_DN	33	0.615	3.9353	0	0	0	295	tags=88%, list=30%, signal=122%
2	GSE22140_GERMFREE_VS_SPF_ARTHRITIC_MOUSE_CD4_TCELL_DN GSE19888_ADENOSINE_A3R_INH_PRETREAT_AND_ACT_BY_A3R_VS_TCELL_MEMBRANES_ACT_MAST_CELL_UP	47	0.539	3.909	0	0	0	271	tags=74%, list=28%, signal=98%
3	GSE37533_PPARG1_FOXP3_VS_FOXP3_TRANSDUCE_CD4_TCELL_DN	50	0.525	3.886	0	0	0	392	tags=88%, list=40%, signal=140%
4		46	0.541	3.7998	0	0	0	401	tags=91%, list=41%, signal=148%



5	GSE1432_CTRL_VS_IFNG_24H_MI CROGLIA_DN	51	0.503	3.7929	0	0	0	254	tags=69%, list=26%, signal=88%
6	GSE24634_IL4_VS_CTRL_TREATE D_NAIVE_CD4_TCELL_DAY3_DN	52	0.504	3.7774	0	0	0	414	tags=90%, list=43%, signal=149%
7	GSE13411_PLASMA_CELL_VS_ME MORY_BCELL_DN	43	0.543	3.7286	0	0	0	374	tags=88%, list=38%, signal=137%
8	GSE42021_TREG_VS_TCONV_PLN_ UP	45	0.538	3.7248	0	0	0	401	tags=91%, list=41%, signal=148%
9	GSE42021_CD24HI_VS_CD24LOW_ TCONV_THYMUS_DN	47	0.495	3.6383	0	0	0	257	tags=70%, list=26%, signal=91%
10	GSE42021_CD24HI_VS_CD24INT_T REG_THYMUS_DN	44	0.506	3.6174	0	0	0	246	tags=70%, list=25%, signal=90%
11	GSE10325_LUPUS_CD4_TCELL_VS _LUPUS_BCELL_DN	50	0.484	3.6063	0	0	0	377	tags=82%, list=39%, signal=127%
12	GSE1432_1H_VS_24H_IFNG_MICR OGLIA_DN	51	0.476	3.5995	0	0	0	257	tags=67%, list=26%, signal=86%
13	GSE1740_UNSTIM_VS_IFNA_STIM ULATED_MCSF_DERIVED_MACR OPHAGE_DN	25	0.653	3.5389	0	0	0	257	tags=88%, list=26%, signal=116%
14	GSE29618_PDC_VS_MDC_DAY7_F LU_VACCINE_DN	50	0.48	3.5339	0	0	0	426	tags=88%, list=44%, signal=148%
15	GSE42021_TREG_PLN_VS_CD24IN T_TREG_THYMUS_DN	43	0.521	3.5272	0	0	0	257	tags=72%, list=26%, signal=94%
16	GSE36476_CTRL_VS_TSST_ACT_16 H_MEMORY_CD4_TCELL_YOUNG _UP	31	0.574	3.4852	0	0	0	260	tags=81%, list=27%, signal=107%
17	GSE7218_UNSTIM_VS_ANTIGEN_S TIM_THROUGH_IGG_BCELL_DN	54	0.461	3.4789	0	0	0	367	tags=80%, list=38%, signal=121%
18	GSE21063_WT_VS_NFATC1_KO_3 H_ANTI_IGM_STIM_BCELL_DN	38	0.515	3.4614	0	0	0	217	tags=66%, list=22%, signal=81%
19	GSE1791_CTRL_VS_NEUROMEDIN U_IN_T_CELL_LINE_3H_UP	27	0.622	3.4556	0	0	0	257	tags=85%, list=26%, signal=113%
20	GSE37533_PPARG2_FOXP3_VS_FO XP3_TRANSDUCECD_CD4_TCELL_ DN	46	0.481	3.4403	0	0	0	401	tags=85%, list=41%, signal=137%
21	GSE41978_ID2_KO_VS_BIM_KO_K LRG1_LOW_EFFECTOR_CD8_TCE LL_UP	38	0.509	3.4267	0	0	0	305	tags=76%, list=31%, signal=107%
22	GSE1432_CTRL_VS_IFNG_6H_MIC ROGLIA_DN	40	0.494	3.4132	0	0	0	411	tags=88%, list=42%, signal=145%
23	GSE7509_UNSTIM_VS_FCGRIIB_ST IM_DC_DN	38	0.492	3.3812	0	0	0	342	tags=79%, list=35%, signal=117%
24	GSE22140_GERMFREE_VS_SPF_M OUSE_CD4_TCELL_UP	40	0.503	3.3659	0	0	0	305	tags=75%, list=31%, signal=105%

25	GSE19888_ADENOSINE_A3R_INH_VS_ACT_WITH_INHIBITOR_PRETR EATMENT_IN_MAST_CELL_UP	34	0.542	3.3481	0	0	0	392	tags=91%, list=40%, signal=147%
26	GSE37533_PPARG1_FOXP3_VS_PP ARG2_FOXP3_TRANSDUCECD4 TCELL_PIOGLITAZONE_TREAT D_DN	42	0.493	3.3409	0	0	0	401	tags=86%, list=41%, signal=139% tags=85%, list=43%, signal=142%
27	GSE29618_PDC_VS_MDC_DN	47	0.461	3.3219	0	0	0	419	tags=70%, list=27%, signal=92%
28	GSE7509_UNSTIM_VS_IFNA_STIM IMMATURE_DC_DN	37	0.51	3.3009	0	0	0	259	tags=88%, list=33%, signal=128%
29	GSE43863_NAIVE_VS_MEMORY_T H1_CD4_TCELL_D150_LCMV_UP	26	0.591	3.2868	0	0	0	321	tags=88%, list=42%, signal=146%
30	GSE29618_MONOCYTE_VS_PDC_U P	40	0.491	3.251	0	0	0	413	tags=86%, list=42%, signal=141%
31	GSE22886_CTRL_VS_LPS_24H_DC_ DN	43	0.474	3.2507	0	0	0	407	tags=89%, list=43%, signal=150%
32	GSE24634_IL4_VS_CTRL_TREAT D_NAIVE_CD4_TCELL_DAY5_DN	38	0.497	3.2451	0	0	0	414	tags=74%, list=31%, signal=104%
33	GSE13485_PRE_VS_POST_YF17D_ VACCINATION_PBMCDN	39	0.484	3.2446	0	0	0	305	tags=84%, list=40%, signal=135%
34	GSE13485_CTRL_VS_DAY7_YF17D _VACCINE_PBMCDN	45	0.464	3.242	0	0	0	392	tags=87%, list=40%, signal=140%
35	GSE13485_CTRL_VS_DAY3_YF17D _VACCINE_PBMCDN	38	0.498	3.2379	0	0	0	392	tags=86%, list=42%, signal=142%
36	GSE10325_LUPUS_CD4_TCELL_VS LUPUS_MYELOID_DN	42	0.475	3.2333	0	0	0	410	tags=96%, list=38%, signal=151%
37	GSE1112_HY_CD8AB_VS_HY_CD8 AA_THYMOCYTE_RTOC_CULTUR E_UP	24	0.602	3.2053	0	0	0	370	tags=58%, list=17%, signal=68%
38	GSE16266_LPS_VS_HEATSHOCK_ AND_LPS_STIM_MEF_UP	36	0.481	3.1568	0	0	0	170	tags=79%, list=26%, signal=105%
39	GSE2770_IL12_AND_TGFB_VS_IL4 TREATED_ACT_CD4_TCELL_48H DN	24	0.579	3.1535	0	0	0	257	tags=54%, list=17%, signal=62%
40	GSE32164_ALTERNATIVELY_ACT M2_VS_CMYC_INHIBITED_MACR OPHAGE_UP	41	0.45	3.1198	0	0	0	170	tags=90%, list=52%, signal=175%
41	GSE3039_NKT_CELL_VS_ALPHAA LPHA_CD8_TCELL_DN	58	0.405	3.1162	0	0	0	506	tags=92%, list=52%, signal=181%
42	GSE10325_LUPUS_CD4_TCELL_VS LUPUS_BCELL_UP	48	0.424	3.1126	0	0	0	505	tags=53%, list=14%, signal=59%
43	GSE17301_ACD3_ACD28_VS_ACD3 ACD28_AND_IFNA5_STIM_CD8_T CELL_DN	38	0.477	3.0828	0	0	0	132	tags=74%, list=18%, signal=88%
44	GSE32533_MIR17_KO_VS_MIR17_O VEREXPRESS_ACT_CD4_TCELL_D N	19	0.621	3.0691	0	#####	0.001	175	

45	GSE36826_WT_VS_IL1R_KO_SKIN_UP	39	0.46	3.0677	0	#### #	0.001	440	tags=90%, list=45%, signal=157%
46	GSE42021_CD24HI_VS_CD24INT_T CONV_THYMUS_DN	33	0.488	3.0491	0	#### #	0.001	267	tags=70%, list=27%, signal=93%
47	GSE29164_UNTREATED_VS_CD8 TCELL_TREATED_MELANOMA_D AY7_UP	36	0.471	3.038	0	#### #	0.001	162	tags=56%, list=17%, signal=64%
48	GSE2128_CTRL_VS_MIMETOPE_N EGATIVE_SELECTION_DP_THYM OCYTE_NOD_UP	30	0.501	3.0371	0	#### #	0.001	173	tags=60%, list=18%, signal=71%
49	GSE22886_NAIVE_TCELL_VS_DC UP	36	0.468	3.0368	0	#### #	0.001	437	tags=89%, list=45%, signal=155%
50	GSE10325_CD4_TCELL_VS_BCELL UP	53	0.403	3.0366	0	#### #	0.001	344	tags=70%, list=35%, signal=102%
51	GSE10325_CD4_TCELL_VS_MYEL OID_DN	47	0.427	3.0363	0	#### #	0.001	394	tags=81%, list=40%, signal=129%
52	GSE41087_WT_VS_FOXP3_MUT_A NTI_CD3_CD28_STIM_CD4_TCELL UP	36	0.478	3.0295	0	#### #	0.001	383	tags=83%, list=39%, signal=132%
53	GSE10325_CD4_TCELL_VS_BCELL DN	55	0.394	3.029	0	#### #	0.001	479	tags=85%, list=49%, signal=159%
54	GSE24026_PD1_LIGATION_VS_CT RL_IN_ACT_TCELL_LINE_UP	49	0.416	3.022	0	#### #	0.001	302	tags=67%, list=31%, signal=93%
55	GSE42021_TREG_PLN_VS_TREG_P RECURSORS_THYMUS_DN	42	0.437	3.021	0	#### #	0.001	401	tags=81%, list=41%, signal=132%
56	GSE25123_WT_VS_PPARG_KO_MA CROPHAGE_DN	28	0.518	3.0052	0	#### #	0.002	224	tags=68%, list=23%, signal=86%
57	GSE13485_DAY3_VS_DAY7_YF17D _VACCINE_PBMC_DN	40	0.447	3.0007	0	#### #	0.002	305	tags=73%, list=31%, signal=101%
58	GSE15330_LYMPHOID_MULTIPOT ENT_VS_MEGAKARYOCYTE_ERY THROID_PROGENITOR_IKAROS_K O_DN	32	0.491	2.9952	0	#### #	0.002	254	tags=69%, list=26%, signal=90%
59	GSE21546_WT_VS_SAP1A_KO_DP_ THYMOCYTES_UP	37	0.463	2.9908	0	#### #	0.002	401	tags=84%, list=41%, signal=137%
60	GSE42021_TREG_PLN_VS_CD24LO _TREG_THYMUS_DN	35	0.474	2.9791	0	#### #	0.002	305	tags=74%, list=31%, signal=104%
61	GSE18791_UNSTIM_VS_NEWCATS LE_VIRUS_DC_6H_DN	30	0.505	2.9777	0	#### #	0.002	305	tags=77%, list=31%, signal=108%
62	GSE10325_LUPUS_CD4_TCELL_VS _LUPUS_MYELOID_UP	42	0.434	2.9727	0	#### #	0.002	541	tags=98%, list=56%, signal=210%
63	GSE13522_CTRL_VS_T_CRUZI_Y_S TRAIN_INF_SKIN_IFNAR_KO_UP	26	0.529	2.9661	0	#### #	0.002	379	tags=88%, list=39%, signal=141%
64	GSE360_L_DONOVANI_VS_M_TUB ERCULOSIS_MAC_DN	29	0.507	2.9602	0	#### #	0.002	321	tags=79%, list=33%, signal=115%

65	GSE17974_IL4_AND_ANTI_IL12_VS_UNTREATED_72H_ACT_CD4_TCELL_LL_DN	33	0.486	2.9571	0	#### #	0.002	239	tags=67%, list=25%, signal=85%
66	GSE37534_UNTREATED_VS_PIOGLITAZONE_TREATED_CD4_TCELL_PPARG1_AND_FOXP3_TRASDUCE_D_DN	36	0.463	2.9488	0	#### #	0.002	246	tags=67%, list=25%, signal=86% tags=76%, list=38%, signal=116%
67	GSE24634_TEFF_VS_TCONV_DAY3_IN_CULTURE_DN	45	0.425	2.9452	0	#### #	0.002	370	tags=69%, list=25%, signal=89%
68	GSE23505_UNTREATED_VS_4DAY_IL6_IL1_IL23_TREATED_CD4_TCELL_DN	29	0.507	2.9334	0	#### #	0.002	242	tags=66%, list=25%, signal=85% tags=79%, list=27%, signal=105%
69	GSE7218_IGM_VS_IGG_SIGNAL_T_HGOUGH_ANTIGEN_BCELL_DN	35	0.453	2.9334	0	#### #	0.002	244	tags=79%, list=27%, signal=105%
70	GSE1740_MCSF_VS_MCSF_AND_IFNG_DAY2_DERIVED_MACROPHAGE_UP	24	0.556	2.9334	0	#### #	0.002	259	tags=64%, list=23%, signal=80% tags=76%, list=25%, signal=98%
71	GSE20715_0H_VS_24H_OZONE_LUNG_UP	33	0.475	2.9197	0	#### #	0.002	227	tags=76%, list=25%, signal=98% tags=70%, list=26%, signal=91%
72	GSE19401_UNSTIM_VS_RETINOIC_ACID_STIM_FOLLICULAR_DC_UP	25	0.543	2.9112	0	#### #	0.002	240	tags=100%, list=56%, signal=217% tags=56%, list=17%, signal=65% tags=87%, list=41%, signal=142%
73	GSE37301_MULTIPOTENT_PROGENITOR_VS_GRAN_MONO_PROGENITOR_DN	30	0.495	2.9099	0	#### #	0.002	250	tags=53%, list=15%, signal=60% tags=84%, list=39%, signal=134%
74	GSE22886_NAIVE_CD8_TCELL_VS_MONOCYTE_DN	35	0.459	2.9012	0	#### #	0.002	542	tags=67%, list=23%, signal=84% tags=94%, list=51%, signal=184%
75	GSE32164_RESTING_DIFFERENTIATED_VS_ALTERNATIVELY_ACTIVATED_M2_MACROPHAGE_DN	34	0.464	2.8992	0	#### #	0.002	170	tags=92%, list=49%, signal=172% tags=96%, list=44%, signal=167%
76	GSE18791_CTRL_VS_NEWCASTLE_VIRUS_DC_8H_DN	30	0.495	2.898	0	#### #	0.002	396	tags=73%, list=31%, signal=101% tags=100%, list=38%, signal=159%
77	GOLDRATH_NAIVE_VS_MEMORY_CD8_TCELL_DN	34	0.459	2.8919	0	#### #	0.003	142	
78	GSE33292_DN3_THYMOCYTE_VS_TCF1_KO_TCELL_LYMPHOMA_UP	31	0.475	2.8853	0	#### #	0.003	382	
79	GSE19888_ADENOSINE_A3R_ACT_VS_TCELL_MEMBRANES_ACT_IN_MAST_CELL_UP	30	0.493	2.8793	0	#### #	0.003	222	
80	GSE43863_DAY6_EFF_VS_DAY150_MEM_LY6C_INT_CXCR5POS_CD4_TCELL_DN	34	0.455	2.8748	0	#### #	0.003	494	
81	GSE29618_BCELL_VS_MONOCYTE_DAY7_FLU_VACCINE_UP	36	0.447	2.8701	0	#### #	0.004	473	
82	GSE2706_UNSTIM_VS_8H_LPS_AND_R848_DC_DN	24	0.533	2.8638	0	#### #	0.004	428	
83	GSE22886_NAIVE_BCELL_VS_NEUTROPHIL_DN	37	0.435	2.8593	0	#### #	0.004	299	
84	GSE2770_IL12_AND_TGFB_VS_IL4_TREATED_ACT_CD4_TCELL_48H_UP	16	0.626	2.8517	0	#### #	0.005	373	

85	GSE21774_CD62L_POS_CD56_BRIG HT_VS_CD62L_NEG_CD56_DIM_N K_CELL_UP	26	0.51	2.8505	0	#### #	0.005	379	tags=88%, list=39%, signal=141%
86	GSE42088_2H_VS_24H_LEISHMANI A_INF_DC_UP	36	0.444	2.8497	0	#### #	0.005	386	tags=81%, list=40%, signal=129%
87	GSE21546_UNSTIM_VS_ANTI_CD3 _STIM_SAP1A_KO_AND_ELK1_KO _DP_THYMOCYTES_UP	16	0.629	2.8493	0	#### #	0.005	321	tags=94%, list=33%, signal=138%
88	GSE20715_0H_VS_48H_OZONE_LU NG_UP	25	0.524	2.8388	0	#### #	0.005	283	tags=76%, list=29%, signal=104%
89	GSE1432_1H_VS_6H_IFNG_MICRO GLIA_DN	30	0.47	2.8345	0	#### #	0.005	254	tags=67%, list=26%, signal=87%
90	GSE41867_DAY15_EFFECTOR_VS_ DAY30_EXHAUSTED_CD8_TCELL _LCMV_CLONE13_UP	25	0.522	2.834	0	#### #	0.005	380	tags=88%, list=39%, signal=141%
91	GSE3982_CTRL_VS_LPS_4H_MAC_ DN	32	0.463	2.8338	0	#### #	0.005	239	tags=66%, list=25%, signal=84%
92	GSE42021_TCONV_PLN_VS_CD24H I_TCONV_THYMUS_UP	35	0.442	2.8207	0	#### #	0.006	257	tags=66%, list=26%, signal=86%
93	GSE22886_NAIVE_VS_IGG_IGA_M EMORY_BCELL_DN	32	0.463	2.8179	0	#### #	0.006	327	tags=75%, list=34%, signal=109%
94	GSE12845_PRE_GC_VS_DARKZON E_GC_TONSIL_BCELL_UP	36	0.438	2.8135	0	#### #	0.006	385	tags=81%, list=40%, signal=128%
95	GSE5589_LPS_AND_IL10_VS_LPS_ AND_IL6_STIM_IL6_KO_MACROP HAGE_45MIN_UP	41	0.411	2.8095	0	#### #	0.006	381	tags=76%, list=39%, signal=119%
96	GSE22886_DAY0_VS_DAY7_MONO CYTE_IN_CULTURE_UP	40	0.412	2.7985	0	#### #	0.007	412	tags=83%, list=42%, signal=137%
97	GSE21360_PRIMARY_VS_TERTIAR Y_MEMORY_CD8_TCELL_DN	46	0.395	2.7908	0	#### #	0.009	428	tags=78%, list=44%, signal=133%
98	GSE7460_CD8_TCELL_VS_CD4_TC ELL_ACT_UP	30	0.462	2.7809	0	#### #	0.011	254	tags=67%, list=26%, signal=87%
99	GSE10325_CD4_TCELL_VS_MYEL OID_UP	49	0.38	2.7739	0	#### #	0.012	546	tags=92%, list=56%, signal=198%
100	GSE3982_MAST_CELL_VS_NKCEL L_DN	27	0.485	2.772	0	#### #	0.013	421	tags=89%, list=43%, signal=152%
101	GSE15767_MED_VS_SCS_MAC_LN _UP	29	0.464	2.7532	0	#### #	0.014	384	tags=83%, list=39%, signal=133%
102	GSE22886_NAIVE_CD8_TCELL_VS _MONOCYTE_UP	60	0.347	2.7466	0	#### #	0.015	541	tags=88%, list=56%, signal=186%
103	GSE13484_UNSTIM_VS_YF17D_VA CCINE_STIM_PBMC_DN	38	0.414	2.7449	0	#### #	0.015	401	tags=79%, list=41%, signal=129%
104	GSE2770_TGFB_AND_IL4_ACT_VS _ACT_CD4_TCELL_2H_DN	28	0.476	2.7402	0	#### #	0.016	426	tags=89%, list=44%, signal=154%

105	GSE1432_CTRL_VS_IFNG_1H_MIC ROGLIA_DN	21	0.527	2.7374	0	#### #	0.017	237	tags=71%, list=24%, signal=92%
106	GSE2405_HEAT_KILLED_LYSATE VS_LIVE_A_PHAGOCYTOPHILUM _STIM_NEUTROPHIL_24H_UP	26	0.496	2.731	0	#### #	0.017	159	tags=58%, list=16%, signal=67%
107	GSE22886_TCELL_VS_BCELL_NAI VE_UP	56	0.353	2.7299	0	#### #	0.017	458	tags=79%, list=47%, signal=140%
108	GSE22196_HEALTHY_VS_OBESE_ MOUSE_SKIN_GAMMADDELTA_TC ELL_UP	41	0.411	2.729	0	#### #	0.017	117	tags=44%, list=12%, signal=48%
109	GSE30083_SP2_VS_SP4_THYMOCY TE_DN	27	0.48	2.7263	0	#### #	0.017	384	tags=85%, list=39%, signal=137%
110	GSE18791_UNSTIM_VS_NEWCATS LE_VIRUS_DC_10H_DN	27	0.487	2.7229	0	#### #	0.017	392	tags=85%, list=40%, signal=139%
111	GSE360_L_DONOVANI_VS_B_MAL AYI_HIGH_DOSE_MAC_DN	28	0.468	2.7179	0	#### #	0.017	235	tags=64%, list=24%, signal=82%
112	GSE22886_CD4_TCELL_VS_BCELL _NAIVE_UP	44	0.396	2.7176	0	#### #	0.017	541	tags=93%, list=56%, signal=200%
113	GSE22886_NAIVE_VS_IGM_MEMO RY_BCELL_DN	33	0.44	2.7154	0	#### #	0.017	419	tags=85%, list=43%, signal=144%
114	GSE18791_CTRL_VS_NEWCASTLE _VIRUS_DC_18H_DN	25	0.492	2.7104	0	#### #	0.02	396	tags=88%, list=41%, signal=144%
115	GSE16385_ROSIGLITAZONE_IL4_V S_IFNG_TNF_STIM_MACROPHAG E_UP	24	0.5	2.7095	0	#### #	0.021	291	tags=75%, list=30%, signal=104%
116	GSE24634_TREG_VS_TCONV_POS T_DAY10_IL4_CONVERSION_DN	36	0.416	2.6999	0.0018	#### #	0.021	310	tags=69%, list=32%, signal=98%
117	GSE46606_UNSTIM_VS_CD40L_IL2 _IL5_1DAY_STIMULATED_IRF4_K O_BCELL_UP	23	0.507	2.6916	0	#### #	0.024	305	tags=78%, list=31%, signal=111%
118	GSE22886_NAIVE_BCELL_VS_MO NOCYTE_DN	29	0.451	2.6908	0	#### #	0.024	413	tags=86%, list=42%, signal=145%
119	GSE21670_UNTREATED_VS_IL6_T REATED_STAT3_KO_CD4_TCELL_ UP	33	0.43	2.6902	0	#### #	0.024	386	tags=79%, list=40%, signal=126%
120	GSE2706_UNSTIM_VS_8H_R848_D C_DN	27	0.477	2.688	0	#### #	0.026	426	tags=89%, list=44%, signal=154%
121	GSE1460_INTRATHYMIC_T_PROG ENITOR_VS_CD4_THYMOCYTE_D N	58	0.334	2.6865	0	#### #	0.027	537	tags=86%, list=55%, signal=181%
122	GSE6259_FLT3L_INDUCED_DEC20 5_POS_DC_VS_CD8_TCELL_DN	21	0.524	2.6834	0	#### #	0.028	384	tags=90%, list=39%, signal=146%
123	GSE40685_TREG_VS_FOXP3_KO_T REG_PRECURSOR_DN	35	0.425	2.6771	0	#### #	0.03	399	tags=80%, list=41%, signal=131%
124	GSE13411_IGM_MEMORY_BCELL_ VS_PLASMA_CELL_UP	28	0.473	2.6683	0	#### #	0.03	462	tags=93%, list=47%, signal=172%

125	GSE33374_CD8_ALPHAALPHA_VS_ALPHABETA_CD161_HIGH_TCELL_DN	40	0.396	2.6679	0	#### #	0.03	441	tags=83%, list=45%, signal=145%
126	GSE21546_SAPIA_KO_VS_SAPIA_KO_AND_ELK1_KO_ANTI_CD3_STIM_DP_THYMOCYTES_DN	22	0.517	2.6667	0	#### #	0.03	329	tags=82%, list=34%, signal=121%
127	GSE24634_TREG_VS_TCONV_POS_T_DAY5_IL4_CONVERSION_DN	41	0.39	2.6621	0	#### #	0.031	272	tags=63%, list=28%, signal=84%
128	GSE23568_CTRL_TRANSDUCED_VS_WT_CD8_TCELL_DN	46	0.373	2.6604	0	#### #	0.034	465	tags=83%, list=48%, signal=151%
129	GSE36078_WT_VS_IL1R_KO_LUNG_DC_DN	25	0.482	2.6502	0	#### #	0.036	354	tags=80%, list=36%, signal=122%
130	GSE36476_CTRL_VS_TSST_ACT_72H_MEMORY_CD4_TCELL_YOUNG_UP	22	0.501	2.6446	0	#### #	0.037	337	tags=82%, list=35%, signal=122%
131	GSE24142_EARLY_THYMIC_PROGENITOR_VS_DN2_THYMOCYTE_FATAL_DN	22	0.504	2.6436	0	#### #	0.037	332	tags=82%, list=34%, signal=121%
132	GSE14000_UNSTIM_VS_4H_LPS_DC_TRANSLATED_RNA_DN	30	0.447	2.6432	0	#### #	0.037	394	tags=83%, list=40%, signal=136%
133	GSE3982_MEMORY_CD4_TCELL_VS_BCELL_UP	42	0.38	2.6426	0	#### #	0.037	465	tags=83%, list=48%, signal=153%
134	GSE17580_TREG_VS_TEFF_S_MANSONI_INF_DN	24	0.489	2.6378	0	#### #	0.039	365	tags=83%, list=37%, signal=130%
135	GSE33424_CD161_INT_VS_NEG_CD8_TCELL_UP	29	0.453	2.6373	0	#### #	0.039	392	tags=83%, list=40%, signal=134%
136	GSE360_L_DONOVANI_VS_M_TUBERCULOSIS_DC_DN	28	0.462	2.6343	0	#### #	0.04	268	tags=71%, list=28%, signal=96%
137	GSE360_DC_VS_MAC_M_TUBERCULOSIS_UP	42	0.376	2.6296	0	#### #	0.041	364	tags=69%, list=37%, signal=105%
138	GSE22140_HEALTHY_VS_ARTHRTIC_GERMFREE_MOUSE_CD4_TCELL_UP	34	0.417	2.6263	0	#### #	0.042	257	tags=62%, list=26%, signal=81%
139	GSE18791_UNSTIM_VS_NEWCATS_LE_VIRUS_DC_18H_DN	19	0.534	2.6256	0	#### #	0.042	254	tags=74%, list=26%, signal=98%
140	GSE3982_CENT_MEMORY_CD4_TCELL_VS_NKCELL_DN	33	0.428	2.6233	0	#### #	0.043	268	tags=64%, list=28%, signal=85%
141	GSE23925_LIGHT_ZONE_VS_NAIVE_BCELL_UP	27	0.464	2.621	0	#### #	0.044	344	tags=78%, list=35%, signal=117%
142	GSE21360_NAIVE_VS_QUATERNARY_MEMORY_CD8_TCELL_UP	23	0.492	2.6132	0	#### #	0.047	396	tags=87%, list=41%, signal=143%
143	GSE360_T_GONDII_VS_M_TUBERCULOSIS_DC_DN	28	0.446	2.6059	0	#### #	0.049	289	tags=71%, list=30%, signal=99%
144	GSE24210_CTRL_VS_IL35_TREATED_TCONV_CD4_TCELL_UP	16	0.573	2.5991	0	#### #	0.052	226	tags=75%, list=23%, signal=96%

145	GSE2706_UNSTIM_VS_2H_R848_D C_DN	25	0.474	2.5962	0	#### #	0.055	254	tags=68%, list=26%, signal=90%
146	GSE17974_IL4_AND_ANTI_IL12_VS UNTREATED_48H_ACT_CD4_TCE LL_DN	23	0.488	2.5928	0	#### #	0.056	397	tags=87%, list=41%, signal=143%
147	GSE41867_DAY6_EFFECTOR_VS_D AY30_EXHAUSTED_CD8_TCELL_L CMV_CLONE13_UP	22	0.493	2.5881	0	#### #	0.059	384	tags=86%, list=39%, signal=139%
148	GSE7852_TREG_VS_TCONV_THY MUS_UP	15	0.592	2.587	0	#### #	0.062	246	tags=80%, list=25%, signal=105%
149	GSE22886_NAIVE_BCELL_VS_BLO OD_PLASMA_CELL_UP	37	0.403	2.5858	0	#### #	0.062	320	tags=70%, list=33%, signal=101%
150	GSE3565_CTRL_VS_LPS_INJECTED _DUSP1_KO_SPLENOCYTES_UP	32	0.412	2.5856	0	#### #	0.062	159	tags=50%, list=16%, signal=58%
151	GSE3982_MAST_CELL_VS_BCELL_ DN	27	0.447	2.5807	0	#### #	0.065	479	tags=93%, list=49%, signal=177%
152	GSE1460_DP_VS_CD4_THYMOCYT E_DN	40	0.378	2.5801	0	#### #	0.067	396	tags=75%, list=41%, signal=121%
153	GSE13485_DAY1_VS_DAY7_YF17D _VACCINE_PBMC_DN	37	0.391	2.5798	0	#### #	0.068	305	tags=68%, list=31%, signal=95%
154	GSE40685_TREG_VS_FOXP3_KO_T REG_PRECURSOR_UP	32	0.431	2.5777	0	#### #	0.069	321	tags=72%, list=33%, signal=104%
155	GSE21546_ELK1_KO_VS_SAPIA_K O_AND_ELK1_KO_DP_THYMOCY TES_UP	20	0.517	2.5702	0.0019	#### #	0.073	305	tags=80%, list=31%, signal=114%
156	GSE19401_NAIVE_VS_IMMUNIZED _MOUSE_PLN_FOLLICULAR_DC_ DN	33	0.408	2.5696	0	#### #	0.073	271	tags=64%, list=28%, signal=85%
157	GSE22886_IGG_IGA_MEMORY_BC ELL_VS_BM_PLASMA_CELL_UP	22	0.498	2.5657	0	#### #	0.076	377	tags=86%, list=39%, signal=138%
158	GSE34156_NOD2_LIGAND_VS_TLR 1_TLR2_LIGAND_6H_TREATED_M ONOCYTE_UP	22	0.488	2.5642	0	#### #	0.079	237	tags=68%, list=24%, signal=88%
159	KAECH_NAIVE_VS_MEMORY_CD 8_TCELL_DN	34	0.412	2.5637	0	#### #	0.079	162	tags=50%, list=17%, signal=58%
160	GSE29618_BCELL_VS_PDC_UP	44	0.368	2.5577	0	#### #	0.082	193	tags=50%, list=20%, signal=60%
161	GSE24634_TREG_VS_TCONV_POS T_DAY3_IL4_CONVERSION_DN	37	0.389	2.5492	0	#### #	0.09	272	tags=62%, list=28%, signal=83%
162	GSE21670_TGFB_VS_IL6_TREATE D_STAT3_KO_CD4_TCELL_DN	18	0.549	2.5483	0	#### #	0.092	233	tags=72%, list=24%, signal=93%
163	GSE46242_CTRL_VS_EGR2_DELET ED_ANERGIC_TH1_CD4_TCELL_D N	20	0.499	2.5412	0.0019	#### #	0.096	351	tags=85%, list=36%, signal=130%
164	GSE19888_CTRL_VS_TCELL_MEM BRANES_ACT_MAST_CELL_PRET REAT_A3R_INH_DN	33	0.41	2.536	0	#### #	0.099	401	tags=79%, list=41%, signal=129%



165	GSE13411_NAIVE_VS_IGM_MEMO RY_BCELL_DN	26	0.451	2.5355	0.0019	#### #	0.099	321	tags=73%, list=33%, signal=106%
166	GSE43955_TH0_VS_TGFB_IL6_TH1 7_ACT_CD4_TCELL_1H_UP	22	0.483	2.5325	0	#### #	0.104	387	tags=86%, list=40%, signal=140%
167	GSE18791_CTRL_VS_NEWCASTLE _VIRUS_DC_6H_DN	28	0.428	2.5239	0	#### #	0.113	392	tags=79%, list=40%, signal=128%
168	GSE22886_DAY0_VS_DAY1_MONO CYTE_IN_CULTURE_UP	45	0.358	2.5231	0	#### #	0.113	556	tags=91%, list=57%, signal=202%
169	GSE43863_NAIVE_VS_MEMORY_T FH_CD4_TCELL_D150_LCMV_UP	27	0.434	2.5224	0	#### #	0.115	494	tags=51%, signal=183%
170	GSE2405_0H_VS_12H_A_PHAGOC YTOPHILUM_STIM_NEUTROPHIL_ UP	36	0.391	2.5214	0	#### #	0.116	530	tags=92%, list=54%, signal=194%
171	GSE2405_S_AUREUS_VS_A_PHAG OCYTOPHILUM_NEUTROPHIL_UP	23	0.481	2.5193	0	#### #	0.119	403	tags=87%, list=41%, signal=145%
172	GSE16755_CTRL_VS_IFNA_TREAT ED_MAC_DN	28	0.437	2.5171	0	#### #	0.122	411	tags=82%, list=42%, signal=138%
173	GSE21546_UNSTIM_VS_ANTI_CD3 _STIM_ELK1_KO_DP_THYMOCYT ES_UP	23	0.483	2.513	0	0.001	0.129	321	tags=78%, list=33%, signal=114%
174	GSE25123_IL4_VS_IL4_AND_ROSI GLITAZONE_STIM_PPARG_KO_M ACROPHAGE_DAY10_DN	23	0.475	2.5113	0	0.001	0.13	250	tags=70%, list=26%, signal=91%
175	GSE22935_WT_VS_MYPD88_KO_MA CROPHAGE_UP	36	0.388	2.5067	0	0.001	0.14	370	tags=72%, list=38%, signal=112%
176	GSE28408_LY6G_POS_VS_NEG_DC _UP	16	0.552	2.5045	0	0.001	0.143	444	tags=100%, list=46%, signal=181%
177	GSE22886_NAIVE_BCELL_VS_NEU TROPHIL_UP	32	0.412	2.5016	0	0.001	0.151	153	tags=50%, list=16%, signal=57%
178	GSE7548_DAY7_VS_DAY28_PCC_I MMUNIZATION_CD4_TCELL_DN	31	0.415	2.4998	0	0.001	0.156	271	tags=65%, list=28%, signal=87%
179	GSE16450_CTRL_VS_IFNA_6H_STI M_IMMATURE_NEURON_CELL_LI NE_DN	21	0.492	2.4963	0	0.001	0.161	295	tags=76%, list=30%, signal=107%
180	GSE42088_UNINF_VS_LEISHMANI A_INF_DC_4H_DN	20	0.496	2.4949	0	0.001	0.164	337	tags=80%, list=35%, signal=120%
181	GSE24142_EARLY_THYMIC_PROG ENITOR_VS_DN2_THYMOCYTE_U P	36	0.393	2.4853	0.0017	0.001	0.181	578	tags=97%, list=59%, signal=230%
182	GSE3400_UNTREATED_VS_IFNB_T REATED_MEF_DN	18	0.516	2.4814	0	0.001	0.186	257	tags=72%, list=26%, signal=96%
183	GSE9960_GRAM_NEG_VS_GRAM_ NEG_AND_POS_SEPSIS_PBMIC_UP	19	0.507	2.4789	0	0.001	0.188	489	tags=100%, list=50%, signal=197%
184	GSE10325_BCELL_VS_MYELOID_ UP	39	0.368	2.4764	0	0.001	0.19	418	tags=77%, list=43%, signal=129%

185	GSE22886_NAIVE_CD4_TCELL_VS_MONOCYTE_UP	42	0.365	2.4751	0	0.001	0.193	533	tags=90%, list=55%, signal=191%
186	GSE18281_SUBCAPSULAR_VS_CENTRAL_CORTICAL_REGION_OF_THYMUS_DN	35	0.392	2.4746	0.0019	0.001	0.193	380	tags=74%, list=39%, signal=117%
187	GSE24634_TEFF_VS_TCONV_DAY7_IN_CULTURE_DN	35	0.392	2.4687	0	0.001	0.202	310	tags=66%, list=32%, signal=93%
188	GSE22886_DC_VS_MONOCYTE_DN	40	0.374	2.4614	0	0.002	0.213	361	tags=73%, list=37%, signal=110%
189	GSE16385_ROSIGLITAZONE_IL4_VS_IL4_ALONE_STIM_MACROPHAGE_12H_UP	24	0.454	2.4603	0	0.002	0.217	161	tags=54%, list=17%, signal=63%
190	GSE3565_DUSP1_VS_WT_SPLENCYTES_UP	27	0.431	2.4589	0	0.002	0.22	162	tags=52%, list=17%, signal=60%
191	GSE1448_CTRL_VS_ANTI_VBETA5_DP_THYMOCYTE_DN	27	0.441	2.4579	0	0.002	0.221	234	tags=63%, list=24%, signal=81%
192	GSE7831_UNSTIM_VS_INFLUENZA_STIM_PDC_4H_UP	27	0.424	2.4547	0	0.002	0.226	159	tags=52%, list=16%, signal=60%
193	GSE2770_IL12_AND_TGFB_ACT_VS_ACT_CD4_TCELL_6H_UP	25	0.446	2.4541	0	0.002	0.227	516	tags=96%, list=53%, signal=199%
194	GSE23568_ID3_TRANSDUCED_VS_ID3_KO_CD8_TCELL_DN	17	0.531	2.4531	0	0.002	0.227	465	tags=100%, list=48%, signal=188%
195	GSE29618_BCELL_VS_MDC_UP	36	0.38	2.4527	0	0.002	0.229	495	tags=89%, list=51%, signal=174%
196	GSE29618_BCELL_VS_MONOCYTE_UP	38	0.374	2.4517	0	0.002	0.229	473	tags=84%, list=49%, signal=157%
197	GSE34205_RSV_VS_FLU_INF_INFANT_PBMC_DN	36	0.381	2.4515	0.0018	0.002	0.23	371	tags=72%, list=38%, signal=112%
198	GSE10240_IL22_VS_IL22_AND_IL17_STIM_PRIMARY_BRONCHIAL_EPITHELIAL_CELLS_DN	17	0.533	2.4478	0	0.002	0.243	312	tags=82%, list=32%, signal=119%
199	GSE18791_CTRL_VS_NEWCASTLE_VIRUS_DC_4H_DN	21	0.483	2.4463	0	0.002	0.246	392	tags=86%, list=40%, signal=140%
200	GSE5099_DAY3_VS_DAY7_MCSF_TREATED_MACROPHAGE_UP	20	0.489	2.4439	0	0.002	0.25	407	tags=95%, list=42%, signal=160%
201	GSE20715_0H_VS_48H_OZONE_TLR4_KO_LUNG_UP	32	0.401	2.4433	0	0.002	0.25	496	tags=91%, list=51%, signal=179%
202	GSE43863_NAIVE_VS_MEMORY_LY6C_INT_CXCR5POS_CD4_TCELL_D150_LCMV_UP	22	0.469	2.4431	0	0.002	0.25	251	tags=68%, list=26%, signal=90%
203	GSE24634_NAIVE_CD4_TCELL_VS_DAY5_IL4_CONV_TREG_UP	21	0.474	2.4294	0	0.002	0.274	437	tags=90%, list=45%, signal=161%
204	GSE32986_CURDLAN_LOWDOSE_VS_CURDLAN_HIGHDOSE_STIM_DC_DN	21	0.468	2.428	0	0.002	0.279	237	tags=67%, list=24%, signal=86%

205	GSE37533_PPARG1_FOXP3_VS_FOXP3_TRANSDUCED_CD4_TCELL_P IOGLITAZONE_TREATED_UP	32	0.403	2.4227	0	0.002	0.289	392	tags=78%, list=40%, signal=126%
206	GSE24142_EARLY_THYMIC_PROG ENITOR_VS_DN2_THYMOCYTE_A DULT_UP	23	0.455	2.4217	0	0.002	0.293	397	tags=83%, list=41%, signal=136%
207	GSE21380_NON_TFH_VS_TFH_CD4 _TCELL_UP	22	0.468	2.4208	0	0.002	0.296	286	tags=73%, list=29%, signal=101%
208	GSE42021_CD24INT_VS_CD24LOW _TREG_THYMUS_DN	31	0.406	2.4203	0	0.002	0.297	392	tags=77%, list=40%, signal=125%
209	GSE3039_ALPHAALPHA_VS_ALPH ABETA_CD8_TCELL_DN	25	0.433	2.4194	0	0.002	0.302	496	tags=92%, list=51%, signal=183%
210	GSE7548_NAIVE_VS_DAY7_PCC_I MMUNIZATION_CD4_TCELL_DN	34	0.389	2.4145	0	0.002	0.314	237	tags=56%, list=24%, signal=71%
211	GSE21379_WT_VS_SAP_KO_TFH_C D4_TCELL_DN	24	0.453	2.4134	0	0.002	0.316	148	tags=54%, list=15%, signal=62%
212	GSE33424_CD161_HIGH_VS_NEG_ CD8_TCELL_UP	25	0.432	2.4116	0	0.002	0.319	453	tags=88%, list=47%, signal=160%
213	GSE29618_BCELL_VS_MDC_DAY7 _FLU_VACCINE_UP	42	0.351	2.4116	0.0018	0.002	0.319	473	tags=81%, list=49%, signal=151%
214	GSE4748_LPS_VS_LPS_AND_CYAN OBACTERIUM_LPSLIKE_STIM_DC _3H_UP	25	0.432	2.4048	0	0.002	0.331	563	tags=100%, list=58%, signal=231%
215	KAECH_NAIVE_VS_DAY15_EFF_C D8_TCELL_DN	35	0.381	2.4006	0.0018	0.002	0.344	256	tags=57%, list=26%, signal=75%
216	GSE26495_NAIVE_VS_PD1LOW_C D8_TCELL_DN	33	0.386	2.3949	0	0.003	0.353	254	tags=58%, list=26%, signal=75%
217	GSE25088_WT_VS_STAT6_KO_MA CROPHAGE_IL4_STIM_UP	24	0.44	2.3947	0	0.003	0.354	475	tags=92%, list=49%, signal=175%
218	GSE19888_ADENOSINE_A3R_INH _VS_TCELL_MEMBRANES_ACT_M AST_CELL_UP	29	0.407	2.394	0.0035	0.003	0.354	392	tags=76%, list=40%, signal=123%
219	GSE2706_UNSTIM_VS_2H_LPS_AN D_R848_DC_DN	28	0.418	2.3896	0	0.003	0.364	397	tags=79%, list=41%, signal=129%
220	GSE360_L_DONOVANI_VS_B_MAL AYI_LOW_DOSE_DC_DN	25	0.443	2.3892	0	0.003	0.365	271	tags=68%, list=28%, signal=92%
221	GSE37605_FOXP3_FUSION_GFP_V S_IRES_GFP_TREG_C57BL6_DN	20	0.482	2.3892	0	0.003	0.365	340	tags=80%, list=35%, signal=120%
222	GSE26030_TH1_VS_TH17_DAY5_P OST_POLARIZATION_UP	28	0.412	2.389	0	0.003	0.365	392	tags=79%, list=40%, signal=128%
223	GSE36826_WT_VS_IL1R_KO_SKIN_ STAPH_AUREUS_INF_DN	31	0.394	2.3878	0	0.003	0.371	425	tags=81%, list=44%, signal=139%
224	GSE42724_NAIVE_BCELL_VS_PLA SMABLAST_UP	37	0.363	2.3841	0	0.003	0.382	280	tags=59%, list=29%, signal=80%

225	GSE43863_DAY6_EFF_VS_DAY150 _MEM_TH1_CD4_TCELL_DN	17	0.519	2.3825	0	0.003	0.388	425	tags=94%, list=44%, signal=164%
226	GSE26495_NAIVE_VS_PD1HIGH_C D8_TCELL_DN	34	0.381	2.3813	0	0.003	0.392	264	tags=59%, list=27%, signal=78%
227	GSE4984_UNTREATED_VS_GALEC TIN1_TREATED_DC_DN	26	0.431	2.3812	0	0.003	0.392	247	tags=62%, list=25%, signal=80%
228	GSE17974_IL4_AND_ANTI_IL12_VS _UNTREATED_24H_ACT_CD4_TCE LL_DN	18	0.509	2.3808	0	0.003	0.392	396	tags=89%, list=41%, signal=147%
229	GSE45739_UNSTIM_VS_ACD3_AC D28_STIM_NRAS_KO_CD4_TCELL _DN	48	0.331	2.3799	0	0.003	0.395	530	tags=85%, list=54%, signal=178%
230	GSE6269_FLU_VS_STREP_PNEUM O_INF_PBMC_UP	31	0.387	2.3784	0	0.003	0.397	305	tags=65%, list=31%, signal=91%
231	GSE3982_NKCELL_VS_TH2_UP	19	0.488	2.3775	0	0.003	0.398	466	tags=95%, list=48%, signal=178%
232	GSE2706_R848_VS_R848_AND_LPS _2H_STIM_DC_DN	21	0.474	2.3773	0	0.003	0.398	254	tags=67%, list=26%, signal=88%
233	GSE19923_HEB_KO_VS_HEB_AND _E2A_KO_DP_THYMOCYTE_DN	27	0.422	2.3771	0	0.003	0.4	425	tags=85%, list=44%, signal=147%
234	GSE21360_NAIVE_VS_PRIMARY_ MEMORY_CD8_TCELL_UP	28	0.409	2.3758	0	0.003	0.405	316	tags=71%, list=32%, signal=103%
235	GSE3982_BCELL_VS_CENT_MEMO RY_CD4_TCELL_UP	35	0.375	2.3694	0	0.003	0.422	170	tags=49%, list=17%, signal=57%
236	GSE360_DC_VS_MAC_T_GONDII_ UP	24	0.438	2.3641	0	0.003	0.44	208	tags=58%, list=21%, signal=72%
237	GSE28726_NAIVE_VS_ACTIVATED _NKTCCELL_UP	18	0.498	2.364	0	0.003	0.441	432	tags=94%, list=44%, signal=167%
238	GSE45365_HEALTHY_VS_MCMV_I NFECTION_CD8A_DC_IFNAR_KO_ DN	28	0.406	2.3638	0	0.003	0.443	401	tags=79%, list=41%, signal=130%
239	GSE5099_CLASSICAL_M1_VS_ALT ERNATIVE_M2_MACROPHAGE_U P	16	0.521	2.3635	0	0.003	0.443	474	tags=100%, list=49%, signal=192%
240	GSE10325_LUPUS_BCELL_VS_LUP US_MYELOID_DN	32	0.387	2.3629	0.0018	0.003	0.445	426	tags=81%, list=44%, signal=140%
241	GSE10325_MYELOID_VS_LUPUS_ MYELOID_DN	31	0.391	2.3598	0	0.003	0.451	181	tags=52%, list=19%, signal=61%
242	GSE29618_BCELL_VS_MDC_DN	33	0.379	2.3512	0.0038	0.003	0.464	441	tags=82%, list=45%, signal=144%
243	GSE40666_NAIVE_VS_EFFECTOR_ CD8_TCELL_WITH_IFNA_STIM_90 MIN_UP	24	0.43	2.3506	0	0.003	0.467	384	tags=79%, list=39%, signal=127%
244	GSE9988_ANTI_TREM1_AND_LPS_ VS_VEHICLE_TREATED_MONOCY TES_DN	21	0.471	2.3473	0	0.003	0.474	323	tags=76%, list=33%, signal=112%

245	GSE13522_CTRL_VS_T_CRUZI_BR AZIL_STRAIN_INF_SKIN_DN	16	0.523	2.346	0.0019	0.003	0.477	403	tags=94%, list=41%, signal=157%
246	GSE19512_NAUTRAL_VS_INDUCE D_TREG_DN	19	0.489	2.3429	0.0019	0.003	0.482	315	tags=79%, list=32%, signal=114%
247	GSE26343_UNSTIM_VS_LPS_STIM_ NFAT5_KO_MACRÖPHAGE_DN	25	0.427	2.3364	0	0.004	0.502	428	tags=84%, list=44%, signal=146%
248	GSE42021_CD24HI_VS_CD24LOW_ TREG_THYMUS_DN	28	0.404	2.3359	0	0.004	0.503	321	tags=68%, list=33%, signal=98%
249	GSE36476_CTRL_VS_TSST_ACT_40 H_MEMORY_CD4_TCELL_YOUNG UP	23	0.435	2.3278	0	0.004	0.526	260	tags=65%, list=27%, signal=87%
250	GSE22589_HEALTHY_VS_SIV_INF ECTED_DC_DN	24	0.429	2.3275	0	0.004	0.528	215	tags=58%, list=22%, signal=73%
251	GSE1925_CTRL_VS_24H_IFNG_STI M_MACRÖPHAGE_UP	22	0.436	2.3203	0	0.004	0.548	364	tags=77%, list=37%, signal=121%
252	GSE18791_CTRL_VS_NEWCASTLE _VIRUS_DC_10H_DN	20	0.471	2.3195	0.0019	0.004	0.548	486	tags=95%, list=50%, signal=186%
253	GSE21360_SECONDARY_VS_QUAT ERNARY_MEMORY_CD8_TCELL_ UP	19	0.469	2.3171	0	0.004	0.557	254	tags=68%, list=26%, signal=91%
254	GSE12845_IGD_POS_BLOOD_VS_N AIVE_TONSIL_BCELL_UP	22	0.446	2.313	0	0.004	0.572	277	tags=68%, list=28%, signal=93%
255	GSE22886_NAIVE_TCELL_VS_NKC ELL_UP	29	0.397	2.3127	0	0.004	0.572	533	tags=93%, list=55%, signal=200%
256	GSE9650_NAIVE_VS_MEMORY_C D8_TCELL_DN	35	0.367	2.3098	0	0.004	0.581	162	tags=46%, list=17%, signal=53%
257	GSE42088_UNINF_VS_LEISHMANI A_INF_DC_24H_UP	30	0.396	2.3062	0	0.005	0.589	362	tags=73%, list=37%, signal=113%
258	GSE18281_PERIMEDULLARY_COR TICAL_REGION_VS_WHOLE_COR TEX_THYMUS_DN	15	0.529	2.3062	0	0.004	0.589	236	tags=73%, list=24%, signal=95%
259	GSE16522_MEMORY_VS_NAIVE_A NTI_CD3CD28_STIM_CD8_TCELL_ DN	29	0.401	2.3019	0	0.005	0.601	442	tags=83%, list=45%, signal=147%
260	GSE21360_TERTIARY_VS_QUATE RNARY_MEMORY_CD8_TCELL_D N	25	0.425	2.3015	0	0.005	0.601	284	tags=68%, list=29%, signal=94%
261	GSE38681_WT_VS_LYL1_KO_LYM PHOID_PRIMED_MULTIPOTENT_P ROGENITOR_DN	28	0.405	2.2973	0	0.005	0.618	447	tags=86%, list=46%, signal=154%
262	GSE46606_UNSTIM_VS_CD40L_IL2 _IL5_1DAY_STIMULATED_IRF4HI GH_SORTED_BCELL_DN	21	0.456	2.2972	0	0.005	0.618	148	tags=52%, list=15%, signal=60%
263	GSE46606_IRF4_KO_VS_WT_UNST IM_BCELL_DN	20	0.463	2.2971	0	0.005	0.619	531	tags=100%, list=55%, signal=215%
264	GSE10325_BCELL_VS_MYELOID_ DN	42	0.338	2.2965	0	0.005	0.619	426	tags=76%, list=44%, signal=130%

265	GSE40274_CTRL_VS_FOXP3_AND_LEF1_TRANSDUCED_ACTIVATED_CD4_TCELL_UP	25	0.421	2.295	0	0.005	0.622	425	tags=84%, list=44%, signal=145%
266	GSE18791_CTRL_VS_NEWCASTLE_VIRUS_DC_16H_DN	24	0.425	2.2934	0.0018	0.005	0.624	463	tags=88%, list=48%, signal=163%
267	GSE17974_0H_VS_48H_IN_VITRO_ACT_CD4_TCELL_UP	17	0.496	2.2921	0	0.005	0.628	247	tags=71%, list=25%, signal=93%
268	GSE7509_DC_VS_MONOCYTE_WITH_FCGRIIB_STIM_DN	29	0.39	2.292	0	0.005	0.629	364	tags=72%, list=37%, signal=112%
269	GSE9650_NAIVE_VS_EFF_CD8_TCELL_DN	38	0.345	2.2895	0	0.005	0.636	162	tags=45%, list=17%, signal=52%
270	GSE3982_MEMORY_CD4_TCELL_VS_TH2_UP	20	0.459	2.2869	0.0036	0.005	0.646	247	tags=65%, list=25%, signal=85%
271	GSE17721_PAM3CSK4_VS_CPG_4H_BMDC_DN	17	0.49	2.2865	0	0.005	0.651	242	tags=71%, list=25%, signal=92%
272	GSE39382_IL3_VS_IL3_IL33_TREATED_MAST_CELL_DN	19	0.467	2.2864	0.0019	0.005	0.651	486	tags=95%, list=50%, signal=185%
273	GSE41176_UNSTIM_VS_ANTI_IGM_STIM_TAK1_KO_BCELL_24H_DN	23	0.423	2.2851	0.0019	0.005	0.655	301	tags=70%, list=31%, signal=98%
274	GSE19923_E2A_KO_VS_HEB_AND_E2A_KO_DP_THYMOCYTE_DN	17	0.503	2.2825	0	0.005	0.66	342	tags=82%, list=35%, signal=125%
275	GSE40274_FOXP3_VS_FOXP3_AND_IRF4_TRANSDUCED_ACTIVATED_CD4_TCELL_DN	16	0.504	2.2804	0	0.005	0.667	122	tags=56%, list=13%, signal=63%
276	GSE17974_CTRL_VS_ACT_IL4_AND_ANTI_IL12_72H_CD4_TCELL_UP	17	0.485	2.279	0	0.005	0.672	248	tags=71%, list=25%, signal=93%
277	GSE360_CTRL_VS_M_TUBERCULOSIS_DC_DN	30	0.382	2.277	0	0.005	0.677	370	tags=73%, list=38%, signal=115%
278	GSE24634_TEFF_VS_TCONV_DAY5_IN_CULTURE_DN	19	0.472	2.2744	0	0.005	0.683	435	tags=89%, list=45%, signal=159%
279	GSE26156_DOUBLE_POSITIVE_VS_CD4_SINGLE_POSITIVE_THYMOCYTE_UP	19	0.475	2.274	0.0019	0.005	0.684	420	tags=89%, list=43%, signal=154%
280	GSE2706_UNSTIM_VS_2H_LPS_DC_DN	27	0.407	2.2739	0.0018	0.005	0.684	237	tags=59%, list=24%, signal=76%
281	GSE7219_UNSTIM_VS_LPS_AND_ANTI_CD40_STIM_NIK_NFKB2_KO_DC_DN	28	0.387	2.2719	0	0.005	0.69	526	tags=93%, list=54%, signal=196%
282	GSE4748_CTRL_VS_CYANOBACTERIUM_LPSTLIKE_STIM_DC_3H_DN	17	0.484	2.2712	0	0.005	0.693	133	tags=53%, list=14%, signal=60%
283	GSE2935_UV_INACTIVATED_VS_LIVE_SENDAI_VIRUS_INF_MACROPHAGE_DN	31	0.373	2.2688	0	0.005	0.703	349	tags=68%, list=36%, signal=102%
284	GSE16385_UNTREATED_VS_12H_ROSIGLITAZONE_IFNG_TNF_TREATED_MACROPHAGE_UP	21	0.453	2.2668	0	0.006	0.707	541	tags=100%, list=56%, signal=220%

285	GSE43863_TFH_VS_LY6C_LOW_C XCR5NEG_EFFECTOR_CD4_TCELL _UP	23	0.423	2.2608	0	0.006	0.719	428	tags=83%, list=44%, signal=144%
286	GSE22886_NAIVE_CD8_TCELL_VS _DC_UP	40	0.34	2.2577	0	0.006	0.729	517	tags=88%, list=53%, signal=179%
287	GSE23568_ID3_KO_VS_WT_CD8_T CELL_DN	37	0.348	2.2568	0	0.006	0.729	281	tags=59%, list=29%, signal=80%
288	GSE23568_ID3_TRANSDUCE D_VS_ID3_KO_CD8_TCELL_UP	44	0.319	2.2541	0.0018	0.006	0.735	465	tags=77%, list=48%, signal=141%
289	GSE21774_CD62L_POS_CD56_DIM _VS_CD62L_NEG_CD56_DIM_NK_C ELL_DN	20	0.46	2.2512	0.0036	0.006	0.748	267	tags=70%, list=27%, signal=94%
290	GSE5679_PPARG_LIGAND_ROSIGL ITAZONE_VS_ROSIGLITAZONE_A ND_RARA_AAGONIST_AM580_TRE ATED_DC_DN	16	0.5	2.2496	0.0037	0.006	0.75	494	tags=100%, list=51%, signal=200%
291	GSE360_HIGH_DOSE_B_MALAYI _VS_M_TUBERCULOSIS_DC_DN	35	0.353	2.2448	0	0.006	0.761	383	tags=71%, list=39%, signal=113%
292	GSE32533_MIR17_KO_VS_MIR17_O VEREXPRESS_ACT_CD4_TCELL_U P	32	0.363	2.2447	0.0018	0.006	0.761	133	tags=41%, list=14%, signal=46%
293	GSE19198_1H_VS_6H_IL21_TREAT ED_TCELL_DN	19	0.454	2.2426	0.0069	0.006	0.765	129	tags=53%, list=13%, signal=59%
294	GSE16450_IMMATURE_VS_MATU RE_NEURON_CELL_LINE_12H_IFN A_STIM_UP	19	0.475	2.2361	0	0.007	0.781	477	tags=95%, list=49%, signal=182%
295	GSE21360_NAIVE_VS_QUATERNA RY_MEMORY_CD8_TCELL_DN	29	0.385	2.2355	0	0.007	0.783	396	tags=76%, list=41%, signal=124%
296	GSE1460_INTRATHYMIC_T_PROG ENITOR_VS_NAIVE_CD4_TCELL_ ADULT_BLOOD_DN	32	0.363	2.2324	0.0051	0.007	0.792	536	tags=91%, list=55%, signal=195%
297	GSE16451_CTRL_VS_WEST_EQUIN E_ENC_VIRUS_IMMATURE_NEUR ON_CELL_LINE_UP	20	0.447	2.2271	0	0.007	0.801	260	tags=65%, list=27%, signal=87%
298	GSE14000_UNSTIM_VS_4H_LPS_D C_DN	32	0.362	2.2247	0	0.007	0.804	411	tags=75%, list=42%, signal=125%
299	GSE35685_CD34POS_CD38NEG_VS _CD34POS_CD10POS_BONE_MARR OW_DN	23	0.418	2.2236	0	0.007	0.807	392	tags=78%, list=40%, signal=128%
300	GSE3920_IFNA_VS_IFNB_TREATE D_ENDOTHELIAL_CELL_DN	25	0.398	2.2218	0.0018	0.007	0.813	526	tags=92%, list=54%, signal=195%
301	GSE41176_WT_VS_TAK1_KO_ANTI _IGM_STIM_BCELL_6H_UP	18	0.47	2.2159	0	0.007	0.823	365	tags=83%, list=37%, signal=131%
302	GSE45365_NK_CELL_VS_CD8_TCE LL_MCMV_INFECTION_DN	27	0.4	2.2152	0.0019	0.007	0.823	286	tags=63%, list=29%, signal=87%
303	GSE9988_ANTI_TREM1_VS_CTRL_ TREATED_MONOCYTES_DN	25	0.4	2.2141	0.0018	0.007	0.825	343	tags=72%, list=35%, signal=108%
304	GSE23568_CTRL_VS_ID3_TRANS D_UCED_CD8_TCELL_UP	28	0.398	2.213	0	0.007	0.826	465	tags=86%, list=48%, signal=159%

305	GSE18791_CTRL_VS_NEWCASTLE_VIRUS_DC_12H_DN	23	0.421	2.2117	0	0.008	0.833	413	tags=83%, list=42%, signal=140%
306	GSE16385_IFNG_TNF_VS_IL4_STIM_MACROPHAGE_UP	20	0.448	2.2116	0	0.008	0.833	362	tags=80%, list=37%, signal=125%
307	GSE10325_CD4_TCELL_VS_LUPUS_CD4_TCELL_DN	38	0.333	2.2034	0	0.008	0.853	447	tags=76%, list=46%, signal=136%
308	GSE27241_CTRL_VS_DIGOXIN_TREATED_CD4_TCELL_IN_TH17_POLARIZING_CONDITIONS_UP	17	0.481	2.2015	0	0.008	0.854	513	tags=100%, list=53%, signal=208%
309	GSE23925_DARK_ZONE_VS_NAIVE_BCELL_DN	23	0.407	2.1999	0.0019	0.008	0.858	353	tags=74%, list=36%, signal=113%
310	GSE4748_CYANOBACTERIUM_LPS_LIKE_VS_LPS_AND_CYANOBACTERIUM_LPSLIKE_STIM_DC_3H_UP	30	0.375	2.1993	0	0.008	0.861	309	tags=63%, list=32%, signal=90%
311	GSE46606_DAY1_VS_DAY3_CD40L_IL2_IL5_STIMULATED_BCELL_DN	16	0.481	2.1965	0	0.008	0.873	192	tags=63%, list=20%, signal=77%
312	GSE11057_NAIVE_CD4_VS_PBMC_CD4_TCELL_DN	23	0.412	2.1933	0	0.008	0.88	272	tags=65%, list=28%, signal=88%
313	GSE3691_IFN_PRODUCING_KILLER_DC_VS_CONVENTIONAL_DC_SPLEEN_DN	16	0.497	2.1884	0.0018	0.009	0.885	178	tags=63%, list=18%, signal=75%
314	GSE3337_4H_VS_16H_IFNG_IN_CD8POS_DC_DN	33	0.357	2.1883	0	0.009	0.885	235	tags=55%, list=24%, signal=69%
315	GSE9988_ANTI_TREM1_AND_LPS_VS_CTRL_TREATED_MONOCYTES_DN	23	0.416	2.1882	0	0.009	0.885	343	tags=74%, list=35%, signal=111%
316	GSE7460_FOXP3_MUT_VS_WT_ACT_TCONV_UP	19	0.445	2.1871	0	0.009	0.888	189	tags=58%, list=19%, signal=70%
317	GSE5679_PPARG_LIGAND_ROSIGLITAZONE_VS_ROSIGLITAZONE_AND_RARA_Agonist_AM580_Treated_DC_UP	20	0.446	2.1834	0.0019	0.009	0.893	241	tags=65%, list=25%, signal=85%
318	GSE557_CIITA_KO_VS_I_AB_KO_DC_UP	19	0.462	2.1817	0.0037	0.009	0.896	303	tags=74%, list=31%, signal=105%
319	GSE29949_CD8_NEG_DC_SPLEEN_VS_MONOCYTE_BONE_MARROW_UP	23	0.417	2.1816	0.0019	0.009	0.896	171	tags=52%, list=18%, signal=62%
320	GSE24634_IL4_VS_CTRL_TREATED_NAIVE_CD4_TCELL_DAY10_DN	27	0.375	2.1797	0	0.009	0.902	399	tags=78%, list=41%, signal=128%
321	GSE22886_NAIVE_CD4_TCELL_VS_DC_UP	34	0.348	2.1785	0.0036	0.009	0.904	552	tags=94%, list=57%, signal=210%
322	GSE22140_HEALTHY_VS_ARTHROITIC_MOUSE_CD4_TCELL_UP	31	0.362	2.1753	0	0.009	0.912	307	tags=65%, list=32%, signal=91%
323	GSE2706_2H_VS_8H_LPS_STIM_DC_DN	24	0.406	2.1742	0.0018	0.009	0.912	411	tags=79%, list=42%, signal=134%
324	GSE360_L_DONOVANI_VS_B_MALAYI_LOW_DOSE_DC_UP	19	0.435	2.172	0.0019	0.009	0.918	282	tags=68%, list=29%, signal=94%



325	GSE22886_IGM_MEMORY_BCELL_VS_BM_PLASMA_CELL_UP	24	0.396	2.1719	0	0.009	0.918	377	tags=79%, list=39%, signal=126%
326	GSE11057_NAIVE_VS_EFF_MEMORY_CD4_TCELL_DN	32	0.355	2.1714	0.0036	0.009	0.918	274	tags=56%, list=28%, signal=76%
327	GSE3982_BCELL_VS_NKCELL_DN	23	0.411	2.1682	0	0.01	0.922	417	tags=83%, list=43%, signal=141%
328	GSE43863_TH1_VS_TFH_MEMORY_CD4_TCELL_DN	27	0.38	2.1674	0.0017	0.01	0.923	413	tags=78%, list=42%, signal=131%
329	GSE7852_THYMUS_VS_FAT_TCONV_DN	25	0.388	2.1624	0	0.01	0.928	413	tags=80%, list=42%, signal=135%
330	GSE40274_CTRL_VS_XBP1_TRANS-DUCED_ACTIVATED_CD4_TCELL_UP	18	0.465	2.1614	0	0.01	0.931	477	tags=94%, list=49%, signal=182%
331	GSE9988_ANTI_TREM1_VS_VEHICLE_TREATED_MONOCYTES_DN	27	0.381	2.1601	0.0037	0.01	0.932	351	tags=70%, list=36%, signal=107%
332	GSE33425_CD161_INT_VS_NEG_CD8_TCELL_DN	23	0.417	2.1591	0.0018	0.01	0.933	240	tags=61%, list=25%, signal=79%
333	GSE35825_IFNA_VS_IFNG_STIM_MACROPHAGE_UP	15	0.488	2.1532	0.0019	0.011	0.941	243	tags=67%, list=25%, signal=87%
334	GSE16450_IMMATURE_VS_MATURE_NEURON_CELL_LINE_UP	25	0.394	2.1527	0	0.011	0.941	459	tags=88%, list=47%, signal=162%
335	GSE14000_UNSTIM_VS_16H_LPS_DC_TRANSLATED_RNA_DN	24	0.402	2.1502	0.0018	0.011	0.944	254	tags=63%, list=26%, signal=82%
336	GSE20715_WT_VS_TLR4_KO_LUNG_DN	15	0.476	2.1468	0	0.011	0.946	406	tags=87%, list=42%, signal=146%
337	GSE42021_CD24INT_VS_CD24LOW_TCONV_THYMUS_UP	28	0.376	2.1456	0.0018	0.011	0.949	267	tags=61%, list=27%, signal=81%
338	GSE3982_MEMORY_CD4_TCELL_VS_BCELL_DN	42	0.312	2.1431	0.0019	0.011	0.95	327	tags=60%, list=34%, signal=86%
339	GSE1740_UNSTIM_VS_IFNA_STIMULATED_MCSF_IFNG_DERIVED_MACROPHAGE_UP	23	0.393	2.1429	0.0037	0.011	0.95	401	tags=78%, list=41%, signal=130%
340	GSE17186_MEMORY_VS_CD21HIGH_TRANSITIONAL_BCELL_DN	33	0.341	2.1425	0	0.011	0.95	477	tags=82%, list=49%, signal=155%
341	GSE360_CTRL_VS_T_GONDII_DC_DN	24	0.396	2.1421	0.0019	0.011	0.95	348	tags=71%, list=36%, signal=107%
342	GSE40274_XBP1_VS_FOXP3_AND_XBP1_TRANS-DUCED_ACTIVATED_CD4_TCELL_UP	18	0.448	2.1413	0.0019	0.011	0.95	344	tags=78%, list=35%, signal=118%
343	GSE3565_CTRL_VS_LPS_INJECTED_SPLENOCYTES_UP	26	0.387	2.1403	0.0036	0.011	0.952	220	tags=54%, list=23%, signal=68%
344	GSE14769_40MIN_VS_360MIN_LPS_BMDM_DN	15	0.479	2.1399	0.0077	0.011	0.952	222	tags=67%, list=23%, signal=85%

345	GSE24142_EARLY_THYMIC_PROG ENITOR_VS_DN3_THYMOCYTE_D N	28	0.371	2.1386	0.0018	0.011	0.955	521	tags=89%, list=53%, signal=186%
346	GSE2405_HEAT_KILLED_LYSATE VS_LIVE_A_PHAGOCYTOPHILUM _STIM_NEUTROPHIL_9H_DN	33	0.337	2.1384	0.0037	0.011	0.956	235	tags=52%, list=24%, signal=66%
347	GSE36078_WT_VS_IL1R_KO_LUNG _DC_AFTER_AD5_INF_UP	33	0.341	2.1376	0.0018	0.011	0.956	142	tags=42%, list=15%, signal=48%
348	GSE17186_NAIVE_VS_CD21LOW_T RANSITIONAL_BCELL_CORD_B LOOD_UP	17	0.468	2.1375	0.0019	0.011	0.956	419	tags=88%, list=43%, signal=152%
349	GSE6092_UNSTIM_VS_IFNG_STIM _ENDOTHELIAL_CELL_DN	20	0.427	2.1373	0.0035	0.011	0.957	355	tags=75%, list=36%, signal=116%
350	GSE29618_MONOCYTE_VS_PDC_D AY7_FLU_VACCINE_UP	35	0.343	2.1369	0	0.011	0.957	426	tags=77%, list=44%, signal=132%
351	GSE11057_PBMC_VS_MEM_CD4_T CELL_UP	30	0.357	2.1354	0	0.011	0.959	506	tags=87%, list=52%, signal=175%
352	GSE43863_DAY6_EFF_VS_DAY150 _MEM_TH1_CD4_TCELL_UP	39	0.317	2.1347	0	0.011	0.961	390	tags=69%, list=40%, signal=111%
353	GSE44649_WT_VS_MIR155_KO_NA IVE_CD8_TCELL_DN	24	0.394	2.1339	0.0055	0.011	0.962	414	tags=79%, list=43%, signal=134%
354	GSE29618_BCELL_VS_MDC_DAY7 _FLU_VACCINE_DN	38	0.327	2.133	0	0.011	0.963	441	tags=76%, list=45%, signal=134%
355	GSE7852_LN_VS_FAT_TCONV_DN	26	0.38	2.1321	0.0019	0.011	0.964	274	tags=62%, list=28%, signal=83%
356	GSE19198_1H_VS_24H_IL21_TREA TED_TCELL_DN	24	0.4	2.1277	0.0056	0.012	0.965	512	tags=92%, list=53%, signal=188%
357	GSE17721_PAM3CSK4_VS_CPG_12 H_BMDC_DN	16	0.459	2.1254	0.0019	0.012	0.969	221	tags=63%, list=23%, signal=80%
358	GSE33425_CD8_ALPHAALPHA_VS _ALPHABETA_CD161_HIGH_TCEL L_UP	32	0.351	2.1251	0	0.012	0.969	309	tags=63%, list=32%, signal=89%
359	GSE19772_CTRL_VS_HCMV_INF_ MONOCYTES_UP	26	0.381	2.1234	0.0018	0.012	0.969	217	tags=54%, list=22%, signal=67%
360	GSE8835_CD4_VS_CD8_TCELL_CL L_PATIENT_UP	33	0.343	2.1225	0.0018	0.012	0.971	237	tags=52%, list=24%, signal=66%
361	GSE22886_CD8_TCELL_VS_BCELL _NAIVE_UP	48	0.291	2.1219	0	0.012	0.974	533	tags=81%, list=55%, signal=171%
362	GSE3982_CTRL_VS_LPS_48H_DC_ DN	36	0.329	2.1213	0.0019	0.012	0.975	299	tags=58%, list=31%, signal=81%
363	GSE17974_CTRL_VS_ACT_IL4_AN D_ANTI_IL12_48H_CD4_TCELL_UP	20	0.427	2.1202	0	0.012	0.975	179	tags=55%, list=18%, signal=66%
364	GSE35685_CD34POS_CD10NEG_CD 62LPOS_VS_CD34POS_CD10POS_B ONE_MARROW_DN	29	0.366	2.1184	0.0018	0.012	0.976	272	tags=59%, list=28%, signal=79%

365	GSE21360_PRIMARY_VS_QUATER NARY_MEMORY_CD8_TCELL_UP	31	0.333	2.1179	0.0037	0.012	0.976	254	tags=55%, list=26%, signal=72%
366	GSE14415_NATURAL_TREG_VS_F OXP3_KO_NATURAL_TREG_UP	20	0.424	2.1176	0.0018	0.012	0.976	474	tags=90%, list=49%, signal=172%
367	GSE22886_NAIVE_TCELL_VS_MO NOCYTE_UP	44	0.304	2.1163	0.0018	0.012	0.976	533	tags=84%, list=55%, signal=177%
368	GSE2770_IL4_ACT_VS_ACT_CD4_T CELL_6H_UP	20	0.431	2.1147	0.002	0.012	0.978	422	tags=85%, list=43%, signal=147%
369	GSE26488_CTRL_VS_PEPTIDE_INJ ECTION_OT2_THYMOCYTE_DN	33	0.341	2.1128	0.0035	0.013	0.979	331	tags=64%, list=34%, signal=93%
370	GSE37301_MULTIPOTENT_PROGE NITOR_VS_COMMON_LYMPHOID _PROGENITOR_UP	19	0.432	2.1078	0.0072	0.013	0.981	419	tags=84%, list=43%, signal=145%
371	GSE22886_NAIVE_CD8_TCELL_VS _DC_DN	29	0.362	2.1076	0	0.013	0.981	268	tags=59%, list=28%, signal=78%
372	GSE24142_EARLY_THYMIC_PROG ENITOR_VS_DN3_THYMOCYTE_A DULT_UP	20	0.422	2.1072	0	0.013	0.982	400	tags=80%, list=41%, signal=133%
373	GSE46606_IRF4HIGH_VS_WT_CD4 0L_IL2_IL5_DAY3_STIMULATED_ BCELL_DN	26	0.369	2.1061	0.0036	0.013	0.984	239	tags=58%, list=25%, signal=74%
374	GSE7460_TCONV_VS_TREG_THY MUS_DN	15	0.489	2.106	0	0.013	0.984	239	tags=67%, list=25%, signal=87%
375	GSE32986_CURDLAN_HIGHDOSE_ VS_GMCSF_AND_CURDLAN_HIG HDOSE_STIM_DC_DN	31	0.344	2.1033	0.0019	0.013	0.984	463	tags=81%, list=48%, signal=149%
376	GSE22601_CD4_SINGLE_POSITIVE _VS_CD8_SINGLE_POSITIVE_THY MOCYTE_DN	23	0.401	2.1032	0.0018	0.013	0.984	252	tags=61%, list=26%, signal=80%
377	GSE33425_CD161_HIGH_VS_INT_C D8_TCELL_UP	26	0.375	2.1018	0.0072	0.013	0.985	309	tags=65%, list=32%, signal=93%
378	GSE6269_HEALTHY_VS_STAPH_A UREUS_INF_PBMC_UP	24	0.396	2.0999	0.0019	0.013	0.985	305	tags=67%, list=31%, signal=95%
379	GSE22886_NAIVE_CD4_TCELL_VS _DC_DN	25	0.383	2.0946	0.0039	0.014	0.985	197	tags=52%, list=20%, signal=64%
380	GSE45365_NK_CELL_VS_CD11B_D C_DN	21	0.409	2.094	0	0.014	0.985	362	tags=76%, list=37%, signal=119%
381	GSE360_T_GONDII_VS_B_MALAYI _LOW_DOSE_DC_DN	29	0.358	2.0923	0.0037	0.014	0.986	417	tags=76%, list=43%, signal=129%
382	GSE40273_GATA1_KO_VS_WT_TR EG_DN	15	0.474	2.0923	0.0018	0.014	0.986	451	tags=93%, list=46%, signal=171%
383	GSE21063_CTRL_VS_ANTI_IGM_S TIM_BCELL_NFATC1_KO_16H_UP	21	0.405	2.0911	0	0.014	0.987	214	tags=57%, list=22%, signal=72%
384	GSE35825_UNTREATED_VS_IFNA_ STIM_MACROPHAGE_DN	21	0.419	2.0863	0	0.014	0.989	312	tags=71%, list=32%, signal=103%

385	GSE22935 WT VS MYD88 KO MA CROPHAGE_48H_MBOVIS_BCG_S TIM_DN	24	0.379	2.0862	0.0019	0.014	0.989	363	tags=71%, list=37%, signal=110%
386	GSE39556 UNTREATED VS 3H P OLYIC_INJ_MOUSE_CD8A_DC_DN	25	0.381	2.0845	0.0039	0.014	0.99	321	tags=68%, list=33%, signal=99%
387	GSE27670 BLIMP1 VS LMP1 TRA NSDUCED_GC_BCELL_UP	31	0.348	2.0832	0.0053	0.015	0.992	303	tags=61%, list=31%, signal=86%
388	GSE31082_DN VS_CD8_SP_THYM OCYTE_DN	22	0.409	2.083	0.0054	0.014	0.992	387	tags=77%, list=40%, signal=125%
389	GSE22611_NOD2_TRANSDUCED_V S_CTRL_HEK293T_STIMULATED_ WITH_MDP_2H_UP	20	0.428	2.0811	0.0018	0.015	0.994	379	tags=80%, list=39%, signal=128%
390	GSE9316_IL6_KO VS_IFNG_KO_IN VIVO_EXPANDED_CD4_TCELL_D N	28	0.364	2.0811	0.0019	0.015	0.994	380	tags=71%, list=39%, signal=114%
391	GSE21927_SPLEEN_C57BL6 VS_4T 1_TUMOR_BALBC_MONOCYTES_ DN	27	0.371	2.0806	0.0017	0.015	0.994	392	tags=74%, list=40%, signal=121%
392	GSE360_T_GONDII VS_M_TUBER CULOSIS_MAC_DN	19	0.426	2.0803	0.0037	0.015	0.994	221	tags=58%, list=23%, signal=73%
393	GSE19772_HCMV_INFL VS_HCMV _INF_MONOCYTES_AND_PI3K_IN HIBITION_DN	23	0.395	2.0796	0.0038	0.015	0.994	217	tags=57%, list=22%, signal=71%
394	GSE29618_BCELL VS_PDC_DAY7_ FLU_VACCINE_UP	44	0.302	2.0755	0.0018	0.015	0.994	193	tags=43%, list=20%, signal=51%
395	GSE40274_FOXP3 VS_FOXP3_AND _PBX1_TRANSDUCED_ACTIVAT E_D_CD4_TCELL_UP	20	0.421	2.0753	0.0019	0.015	0.994	351	tags=75%, list=36%, signal=115%
396	GSE19198_CTRL VS_IL21_TREATE D_TCELL_6H_UP	31	0.343	2.0723	0.0071	0.015	0.995	406	tags=74%, list=42%, signal=123%
397	GSE2405_0H VS_1.5H_A_PHAGOC YTOPHILUM_STIM_NEUTROPHIL_ UP	19	0.426	2.0711	0.0057	0.015	0.995	275	tags=68%, list=28%, signal=93%
398	GSE43863_TH1 VS_TFH_EFFECTO R_CD4_TCELL_DN	16	0.465	2.0702	0.0018	0.015	0.995	367	tags=81%, list=38%, signal=128%
399	GSE30083_SP3 VS_SP4_THYMOCY TE_DN	28	0.355	2.0697	0.0055	0.015	0.995	251	tags=57%, list=26%, signal=75%
400	GSE3337_CTRL VS_4H_IFNG_IN_C D8POS_DC_DN	29	0.352	2.0696	0.0035	0.015	0.995	241	tags=55%, list=25%, signal=71%
401	GSE30971_WBP7_HET VS_KO_MA CROPHAGE_2H_LPS_STIM_UP	29	0.348	2.0696	0.0073	0.015	0.995	291	tags=62%, list=30%, signal=86%
402	GSE24142_EARLY_THYMIC_PROG ENITOR_VS_DN3_THYMOCYTE_U P	29	0.353	2.0679	0	0.015	0.995	400	tags=72%, list=41%, signal=119%
403	GSE3982_BCELL VS_TH2_UP	26	0.363	2.0654	0.0037	0.016	0.995	170	tags=46%, list=17%, signal=54%
404	GSE11864_CSF1_IFNG VS_CSF1_P AM3CYS_IN_MAC_UP	23	0.387	2.0651	0.0019	0.016	0.996	387	tags=78%, list=40%, signal=127%

405	GSE22886_IGM_MEMORY_BCELL_VS_BLOOD_PLASMA_CELL_UP	21	0.396	2.0639	0.0038	0.016	0.996	145	tags=48%, list=15%, signal=55%
406	GSE30962_ACUTE_VS_CHRONIC_LCMV_PRIMARY_INF_CD8_TCELL_UP	20	0.414	2.0618	0.002	0.016	0.996	578	tags=100%, list=59%, signal=241%
407	GSE17974_IL4_AND_ANTI_IL12_VS_UNTREATED_12H_ACT_CD4_TCELL_LL_DN	17	0.447	2.0611	0.0052	0.016	0.996	138	tags=53%, list=14%, signal=61%
408	GSE14769_UNSTIM_VS_60MIN_LP_S_BMDM_DN	17	0.451	2.0599	0.0018	0.016	0.996	329	tags=76%, list=34%, signal=113%
409	GSE17301_IFNA2_VS_IFNA2_AND_ACD3_ACD28_STIM_CD8_TCELL_UP	19	0.418	2.0593	0.008	0.016	0.996	290	tags=68%, list=30%, signal=96%
410	GSE360_T_GONDII_VS_B_MALAYI_HIGH_DOSE_DC_UP	23	0.392	2.0573	0.0019	0.016	0.999	237	tags=57%, list=24%, signal=73%
411	GSE15735_CTRL_VS_HDAC_INHIBITOR_TREATED_CD4_TCELL_2H_DN	28	0.362	2.0534	0.0037	0.017	0.999	530	tags=89%, list=54%, signal=190%
412	GSE7509_DC_VS_MONOCYTE_UP	27	0.365	2.0532	0.0165	0.017	0.999	269	tags=59%, list=28%, signal=80%
413	GSE29949_MICROGLIA_BRAIN_VS_CD8_NEG_DC_SPLEEN_UP	17	0.448	2.0508	0.0018	0.017	0.999	177	tags=59%, list=18%, signal=71%
414	GSE20366_TREG_VS_TCONV_DN	20	0.414	2.0498	0.0053	0.017	0.999	435	tags=85%, list=45%, signal=150%
415	GSE31082_DP_VS_CD8_SP_THYMOCYTE_DN	24	0.383	2.0476	0.0075	0.017	0.999	526	tags=92%, list=54%, signal=194%
416	GSE40274_FOXP3_VS_FOXP3_AND_LEF1_TRANSDUCED_ACTIVATE_D_CD4_TCELL_UP	24	0.376	2.0473	0.0018	0.017	0.999	379	tags=75%, list=39%, signal=120%
417	GSE34156_UNTREATED_VS_6H_NOD2_LIGAND_TREATED_MONOCYTE_DN	28	0.356	2.0462	0.0037	0.017	1	364	tags=71%, list=37%, signal=111%
418	GSE19888_ADENOSINE_A3R_ACT_VS_A3R_ACT_WITH_A3R_INH_PRETREATMENT_IN_MAST_CELL_DN	21	0.404	2.046	0.0036	0.017	1	243	tags=62%, list=25%, signal=81%
419	GSE36527_CD62L_HIGH_VS_CD62L_LOW_TREG_CD69_NEG_KLRG1_NEG_UP	35	0.329	2.0413	0.0034	0.018	1	259	tags=54%, list=27%, signal=71%
420	GSE24574_BCL6_HIGH_VS_LOW_TFH_CD4_TCELL_UP	27	0.36	2.0377	0.0068	0.018	1	351	tags=70%, list=36%, signal=107%
421	GSE28130_ACTIVATED_VS_INDUCED_TREG_UP	25	0.362	2.0373	0	0.018	1	281	tags=60%, list=29%, signal=82%
422	GSE5455_HEALTHY_VS_TUMOR_BEARING_MOUSE_SPLEEN_MONOCYTE_DN	24	0.372	2.0323	0.0037	0.019	1	576	tags=96%, list=59%, signal=229%
423	GSE13946_CTRL_VS_DSS_COLITIS_GD_TCELL_FROM_COLON_UP	27	0.363	2.0317	0.0038	0.019	1	256	tags=59%, list=26%, signal=78%
424	GSE2405_0H_VS_3H_A_PHAGOCYTOPHILUM_STIM_NEUTROPHIL_UP	16	0.454	2.0301	0.0055	0.019	1	351	tags=81%, list=36%, signal=125%

425	GSE3720_UNSTIM_VS_LPS_STIM_VD2_GAMMADelta_TCELL_UP	15	0.461	2.0298	0.0038	0.019	1	463	tags=93%, list=48%, signal=175%
426	GSE19888_ADENOSINE_A3R_INH_VS_ACT_IN_MAST_CELL_DN	23	0.387	2.0293	0.0018	0.019	1	265	tags=65%, list=27%, signal=87%
427	GSE16385_IFNG_TNF_VS_UNSTIM_MACROPHAGE_ROSIGLITAZONE_TREATED_DN	23	0.38	2.0277	0.0038	0.019	1	447	tags=83%, list=46%, signal=149%
428	GSE28783_ANTI_MIR33_VS_UNTREATED_ATHEROSCLEROSIS_MACROPHAGE_DN	22	0.394	2.0276	0.0039	0.019	1	266	tags=64%, list=27%, signal=86%
429	GSE26030_TH1_VS_TH17_DAY15_POST_POLARIZATION_DN	22	0.395	2.0269	0.0019	0.019	1	171	tags=50%, list=18%, signal=59%
430	GSE32034_LY6C_HIGH_VS_LOW_ROSIGLITAZONE_TREATED_MONOCYTE_UP	20	0.405	2.0234	0.0036	0.02	1	286	tags=65%, list=29%, signal=90%
431	GSE11057_NAIVE_VS_MEMORY_CD4_TCELL_DN	28	0.354	2.0221	0.0038	0.02	1	138	tags=43%, list=14%, signal=48%
432	GSE17186_BLOOD_VS_CORD_BLOOD_CD21HIGH_TRANSITIONAL_BCELL_DN	16	0.45	2.0206	0.0036	0.02	1	382	tags=81%, list=39%, signal=131%
433	GSE17721_PAM3CSK4_VS_GADIGUIMOD_6H_BMDC_DN	20	0.403	2.0187	0.0106	0.02	1	329	tags=70%, list=34%, signal=104%
434	GSE29618_MONOCYTE_VS_MDC_UP	33	0.326	2.0178	0.0018	0.02	1	413	tags=76%, list=42%, signal=127%
435	GSE23398_WT_VS_IL2_KO_CD4_TCELL_SCURFY_MOUSE_UP	23	0.385	2.0177	0.002	0.02	1	87	tags=39%, list=9%, signal=42%
436	GSE31082_DN_VS_CD4_SP_THYMOCYTE_DN	16	0.448	2.0162	0.0037	0.02	1	387	tags=81%, list=40%, signal=133%
437	GSE11057_CD4_CENT_MEM_VS_PBMC_DN	25	0.368	2.016	0.0039	0.02	1	506	tags=92%, list=52%, signal=187%
438	GSE24634_NAIVE_CD4_TCELL_VS_DAY3_IL4_CONV_TREG_UP	20	0.4	2.0096	0.0037	0.021	1	374	tags=75%, list=38%, signal=119%
439	GSE7852_TREG_VS_TCONV_DN	23	0.375	2.0085	0.0054	0.021	1	420	tags=78%, list=43%, signal=134%
440	GSE3982_MAST_CELL_VS_EFFECTIVE_MEMORY_CD4_TCELL_DN	25	0.372	2.0054	0.0019	0.021	1	526	tags=92%, list=54%, signal=195%
441	GSE34006_WT_VS_A2AR_KO_TREG_DN	21	0.401	2.0037	0.0038	0.022	1	428	tags=81%, list=44%, signal=141%
442	GSE4535_BM_DERIVED_DC_VS_FOLLICULAR_DC_UP	23	0.369	2.0035	0.0126	0.022	1	239	tags=57%, list=25%, signal=73%
443	GSE13485_DAY7_VS_DAY21_YF17D_VACCINE_PBMC_UP	18	0.416	2.0032	0.0052	0.022	1	380	tags=78%, list=39%, signal=125%
444	KAECH_NAIVE_VS_DAY8_EFFECTIVE_CD8_TCELL_UP	18	0.419	2.0023	0.0019	0.022	1	373	tags=78%, list=38%, signal=124%

445	GSE32164 RESTING DIFFERENTIAL TED_VS_CMYC_INHIBITED_MAC ROPHAGE_DN	42	0.295	2.0018	0.0018	0.022	1	515	tags=81%, list=53%, signal=164%
446	GSE19888 ADENOSINE A3R_INH VS_INH_PRETREAT_AND_ACT_WI TH_TCELL_MEMBRANES_MAST_ CELL_UP	22	0.388	2.0001	0	0.022	1	243	tags=59%, list=25%, signal=77% tags=90%, list=51%, signal=180%
447	GSE15733 BM_VS_SPLEEN_MEMO RY_CD4_TCELL_UP	21	0.397	1.9991	0.0054	0.022	1	494	tags=82%, list=40%, signal=136%
448	GSE40274_CTRL_VS_FOXP3_AND_ PBX1_TRANSDUCE_ACTIVATED _CD4_TCELL_UP	17	0.438	1.999	0.0019	0.022	1	394	tags=46%, list=20%, signal=55%
449	GSE24634_IL4_VS_CTRL_TREATE D_NAIVE_CD4_TCELL_DAY5_UP	35	0.304	1.998	0.0073	0.022	1	195	tags=88%, list=46%, signal=159%
450	GSE15330 GRANULOCYTE_MONO CYTE_PROGENITOR_VS_PRO_BCE LL_DN	17	0.432	1.9976	0.0075	0.022	1	444	tags=95%, list=54%, signal=204%
451	GSE37301_MULTIPOTENT_PROGE NITOR_VS_CD4_TCELL_UP	19	0.41	1.997	0.0036	0.022	1	530	tags=74%, list=43%, signal=127%
452	GSE3039_CD4_TCELL_VS_ALPHA BETA_CD8_TCELL_UP	27	0.346	1.9968	0.0107	0.022	1	422	tags=86%, list=49%, signal=164%
453	GSE7348_UNSTIM_VS_LPS_STIM_ MACROPHAGE_DN	22	0.377	1.9963	0.0055	0.022	1	473	tags=74%, list=35%, signal=111%
454	GSE37533_PPARG2_FOXP3_VS_FO XP3_TRANSDUCE_CD4_TCELL_P IOGLITAZONE_TREATED_DN	19	0.416	1.9944	0.0058	0.022	1	340	tags=84%, list=47%, signal=156%
455	GSE24142_EARLY_THYMIC_PROG ENITOR_VS_DN3_THYMOCYTE_F ETAL_UP	25	0.378	1.9937	0.004	0.022	1	462	tags=78%, list=43%, signal=135%
456	GSE28783_ANTI_MIR33_VS_UNTR EATED_ATHEROSCLEROSIS_MAC ROPHAGE_UP	23	0.379	1.9914	0.0037	0.023	1	422	tags=50%, list=16%, signal=59%
457	GSE24574_BCL6_HIGH_TFH_VS_T CONV_CD4_TCELL_DN	20	0.4	1.9898	0.0096	0.023	1	159	tags=42%, list=14%, signal=47%
458	GSE43955_10H_VS_30H_ACT_CD4_ TCELL_UP	24	0.364	1.989	0.0057	0.023	1	133	tags=42%, list=18%, signal=49%
459	GSE39110_UNTREATED_VS_IL2_T REATED_CD8_TCELL_DAY6_POST _IMMUNIZATION_UP	36	0.307	1.989	0.0018	0.023	1	173	tags=94%, list=52%, signal=192%
460	GSE3982_MAST_CELL_VS_NEUTR OPHIL_DN	17	0.438	1.9886	0.0074	0.023	1	504	tags=86%, list=48%, signal=161%
461	GSE28726_NAIVE_CD4_TCELL_VS _NAIVE_NKTCELL_DN	21	0.395	1.9863	0	0.023	1	467	tags=53%, list=26%, signal=70%
462	GSE15330_MEGAKARYOCYTE_ER YTHROID_VS GRANULOCYTE_M ONOCYTE_PROGENITOR_UP	30	0.328	1.9843	0.0018	0.023	1	256	tags=96%, list=58%, signal=224%
463	GSE37301_CD4_TCELL_VS GRAN ULOCYTE_MONOCYTE_PROGENI TOR_DN	23	0.374	1.9839	0.0073	0.023	1	567	tags=58%, list=21%, signal=72%
464	GSE360_HIGH_VS_LOW_DOSE_B_ MALAYI_MAC_UP	19	0.403	1.9836	0.0074	0.023	1	207	

465	GSE17301_CTRL_VS_48H_IFNA2_S TIM_CD8_TCELL_DN	23	0.373	1.9821	0.0076	0.023	1	533	tags=91%, list=55%, signal=197%
466	GSE411_WT_VS_SOCS3_KO_MACR OPHAGE_IL6_STIM_400MIN_UP	22	0.385	1.9783	0.0055	0.024	1	176	tags=50%, list=18%, signal=60%
467	GSE1460_CD4_THYMOCYTE_VS_T HYMIC_STROMAL_CELL_UP	23	0.365	1.9738	0.0038	0.025	1	585	tags=96%, list=60%, signal=234%
468	GSE1460_DP_THYMOCYTE_VS_N AIVE_CD4_TCELL_ADULT_BLOO D_DN	30	0.325	1.9737	0.0035	0.025	1	536	tags=87%, list=55%, signal=187%
469	GSE5589_WT_VS_IL10_KO_LPS_ST IM_MACROPHAGE_180MIN_UP	16	0.442	1.9723	0.0036	0.025	1	237	tags=63%, list=24%, signal=81%
470	GSE22886_NAIVE_CD4_TCELL_VS _NKCELL_UP	27	0.348	1.9717	0.0036	0.025	1	539	tags=89%, list=55%, signal=194%
471	GSE21670_STAT3_KO_VS_WT_CD4 _TCELL_TGFB_IL6_TREATED_DN	30	0.335	1.9695	0.0088	0.025	1	434	tags=77%, list=45%, signal=134%
472	GSE2128_CTRL_VS_MIMETOPE_N EGATIVE_SELECTION_DP_THYM OCYTE_C57BL6_UP	19	0.399	1.9689	0.0113	0.025	1	351	tags=74%, list=36%, signal=113%
473	GSE3982_DC_VS_TH2_UP	24	0.36	1.9688	0.0056	0.025	1	310	tags=63%, list=32%, signal=89%
474	GSE29618_MONOCYTE_VS_MDC_ DAY7_FLU_VACCINE_DN	34	0.314	1.9681	0.0071	0.025	1	315	tags=59%, list=32%, signal=84%
475	GSE5503_MLN_DC_VS_SPLEEN_D C_ACTIVATED_ALLOGENIC_TCEL L_UP	18	0.409	1.9679	0.011	0.025	1	395	tags=78%, list=41%, signal=128%
476	GSE2706_R848_VS_LPS_2H_STIM_ DC_DN	15	0.469	1.9676	0.0074	0.025	1	237	tags=67%, list=24%, signal=87%
477	GSE339_CD8POS_VS_CD4CD8DN_ DC_UP	21	0.391	1.9664	0.0112	0.025	1	479	tags=86%, list=49%, signal=165%
478	GSE360_T_GONDII_VS_B_MALAYI _HIGH_DOSE_MAC_DN	38	0.292	1.9662	0.0056	0.025	1	526	tags=82%, list=54%, signal=170%
479	GSE19923_WT_VS_HEB_AND_E2A _KO_DP_THYMOCYTE_DN	24	0.36	1.9653	0.0036	0.025	1	422	tags=79%, list=43%, signal=136%
480	GSE34156_UNTREATED_VS_24H_N OD2_LIGAND_TREATED_MONOC YTE_DN	34	0.308	1.9647	0.0051	0.025	1	537	tags=85%, list=55%, signal=183%
481	GSE24634_TEFF_VS_TCONV_DAY1 0_IN_CULTURE_DN	35	0.303	1.964	0.0075	0.025	1	321	tags=60%, list=33%, signal=86%
482	GSE20366_TREG_VS_NAIVE_CD4_ TCELL_HOMEOSTATIC_CONVERS ION_DN	17	0.428	1.9634	0.0037	0.026	1	406	tags=82%, list=42%, signal=139%
483	GSE34006_A2AR_KO_VS_A2AR_A GONIST_TREATED_TREG_UP	23	0.366	1.9619	0.0074	0.026	1	428	tags=78%, list=44%, signal=136%
484	GSE41176_WT_VS_TAK1_KO_ANTI _IGM_STIM_BCELL_6H_DN	32	0.323	1.9602	0.0094	0.026	1	240	tags=53%, list=25%, signal=68%



485	GSE5455_HEALTHY_VS_TUMOR_BEARING_MOUSE_SPLEEN_MONOCYTE_24H_INCUBATION_DN	17	0.419	1.96	0.0056	0.026	1	303	tags=71%, list=31%, signal=101%
486	GSE12392_IFNAR_KO_VS_IFNB_KO_CD8_NEG_SPLEEN_DC_DN	27	0.344	1.9594	0.0035	0.026	1	477	tags=81%, list=49%, signal=155%
487	GSE25123_WT_VS_PPARG_KO_MACROPHAGE_ROSIGLITAZONE_STIM_DN	20	0.392	1.9583	0.0109	0.026	1	428	tags=80%, list=44%, signal=140%
488	GSE17721_ALL_VS_24H_PAM3CSK4_BMDC_UP	25	0.353	1.9568	0.0147	0.026	1	220	tags=52%, list=23%, signal=65%
489	GSE42088_UNINF_VS_LEISHMANIA_INF_DC_2H_DN	20	0.386	1.9559	0.0094	0.026	1	556	tags=95%, list=57%, signal=217%
490	GSE19401_UNSTIM_VS_RETINOIC_ACID_STIM_FOLLICULAR_DC_DN	29	0.339	1.9507	0.0036	0.027	1	260	tags=55%, list=27%, signal=73%
491	GSE9650_NAIVE_VS_EXHAUSTED_CD8_TCELL_UP	21	0.384	1.9503	0.0075	0.027	1	432	tags=81%, list=44%, signal=142%
492	GSE18281_CORTICAL_VS_MEDULLARY_THYMOCYTE_DN	16	0.435	1.95	0.0055	0.027	1	488	tags=94%, list=50%, signal=185%
493	GSE39556_UNTREATED_VS_3H_POLYIC_INJ_MOUSE_CD8A_DC_UP	44	0.276	1.9482	0.0035	0.027	1	241	tags=50%, list=25%, signal=63%
494	GSE43955_1H_VS_20H_ACT_CD4_TCELL_WITH_TGFB_IL6_DN	27	0.352	1.9478	0.014	0.027	1	187	tags=48%, list=19%, signal=58%
495	GSE6269_FLU_VS_STAPH_AUREUS_INF_PBMC_UP	22	0.371	1.9464	0.0171	0.027	1	379	tags=73%, list=39%, signal=116%
496	GSE12366_GC_VS_NAIVE_BCELL_DN	28	0.336	1.9449	0	0.028	1	390	tags=71%, list=40%, signal=116%
497	GSE12366_NAIVE_VS_MEMORY_BCELL_DN	24	0.363	1.9442	0.0073	0.028	1	227	tags=54%, list=23%, signal=69%
498	GSE22886_CD8_VS_CD4_NAIVE_TCELL_DN	17	0.413	1.9435	0.0112	0.028	1	218	tags=59%, list=22%, signal=74%
499	GSE3920_UNTREATED_VS_IFNG_TREATED_ENDOTHELIAL_CELL_UP	17	0.423	1.9435	0.0057	0.028	1	296	tags=71%, list=30%, signal=100%
500	GSE39820_CTRL_VS_IL1B_IL6_IL23A_CD4_TCELL_DN	23	0.372	1.9433	0.0096	0.028	1	189	tags=52%, list=19%, signal=63%
501	GSE360_CTRL_VS_L_MAJOR_DC_DN	19	0.395	1.9432	0.0058	0.028	1	303	tags=68%, list=31%, signal=97%
502	GSE11961_UNSTIM_VS_ANTI_IGM_AND_CD40_STIM_6H_FOLLICULAR_BCELL_DN	22	0.384	1.9426	0.0113	0.028	1	244	tags=59%, list=25%, signal=77%
503	GSE40274_LEF1_VS_FOXP3_AND_LEF1_TRANSDUCED_ACTIVATED_CD4_TCELL_DN	17	0.425	1.9413	0.0056	0.028	1	256	tags=65%, list=26%, signal=86%
504	GSE360_HIGH_DOSE_B_MALAYI_VS_M_TUBERCULOSIS_MAC_DN	26	0.344	1.9406	0.0094	0.028	1	239	tags=54%, list=25%, signal=69%

505	GSE21063_WT_VS_NFATC1_KO_3 H_ANTI_IGM_STIM_BCELL_UP	17	0.417	1.9403	0.0056	0.028	1	260	tags=65%, list=27%, signal=87%
506	GSE15930_STIM_VS_STIM_AND_T RICHOSTATINA_48H_CD8_T_CELL _UP	24	0.358	1.9389	0	0.028	1	260	tags=58%, list=27%, signal=78%
507	GSE14769_UNSTIM_VS_80MIN_LP S_BMDM_DN	24	0.36	1.938	0	0.028	1	254	tags=58%, list=26%, signal=77%
508	GSE43955_1H_VS_60H_ACT_CD4_T CELL_UP	26	0.347	1.9357	0.0094	0.028	1	373	tags=69%, list=38%, signal=109%
509	GSE9878_CTRL_VS_EBF_TRANSD UCED_PAX5_KO_PRO_BCELL_UP	15	0.434	1.9352	0.0074	0.028	1	272	tags=67%, list=28%, signal=91%
510	GSE1791_CTRL_VS_NEUROMEDIN U_IN_T_CELL_LINE_12H_DN	15	0.446	1.9343	0.0132	0.029	1	257	tags=67%, list=26%, signal=89%
511	GSE1460_DP_THYMOCYTE_VS_N AIVE_CD4_TCELL_CORD_BLOOD_ DN	15	0.443	1.9318	0.0078	0.029	1	548	tags=100%, list=56%, signal=225%
512	GSE22601_IMMATURE_CD4_SING LE_POSITIVE_VS_CD8_SINGLE_P OSITIVE_THYMOCYTE_UP	26	0.348	1.9304	0.0036	0.029	1	421	tags=77%, list=43%, signal=132%
513	GSE3982_CENT_MEMORY_CD4_T CELL_VS_TH2_UP	19	0.392	1.9261	0.0018	0.03	1	244	tags=58%, list=25%, signal=76%
514	GSE37534_UNTREATED_VS_ROSI GLITAZONE_TREATED_CD4_TCEL L_PPARG1_AND_FOXP3_TRASDU CED_DN	30	0.325	1.9253	0.0074	0.03	1	486	tags=80%, list=50%, signal=155%
515	GSE1460_INTRATHYMIC_T_PROG ENITOR_VS_NAIVE_CD4_TCELL_ CORD_BLOOD_DN	15	0.435	1.9221	0.0133	0.03	1	495	tags=93%, list=51%, signal=187%
516	GSE4590_LARGE_PRE_BCELL_VS_ VPREB_POS_LARGE_PRE_BCELL_ DN	21	0.377	1.9206	0.0128	0.031	1	571	tags=95%, list=59%, signal=225%
517	GSE360_DC_VS_MAC_L_DONOVA NI_UP	20	0.391	1.9203	0.0097	0.031	1	208	tags=55%, list=21%, signal=68%
518	GSE43863_TH1_VS_LY6C_INT_CX CR5POS_MEMORY_CD4_TCELL_D N	16	0.427	1.9197	0.0136	0.031	1	159	tags=50%, list=16%, signal=59%
519	GSE1432_6H_VS_24H_IFNG_MICR OGLIA_DN	24	0.355	1.9195	0.009	0.031	1	257	tags=58%, list=26%, signal=77%
520	GSE20715_0H_VS_24H_OZONE_TL R4_KO_LUNG_UP	24	0.359	1.9176	0.0125	0.031	1	442	tags=79%, list=45%, signal=141%
521	GSE2706_R848_VS_R848_AND_LPS _8H_STIM_DC_UP	18	0.402	1.9148	0.0037	0.031	1	321	tags=72%, list=33%, signal=106%
522	GSE26343_WT_VS_NFAT5_KO_MA CROPHAGE_DN	17	0.405	1.9128	0.0039	0.032	1	381	tags=76%, list=39%, signal=123%
523	GSE9509_LPS_VS_LPS_AND_IL10 STIM_IL10_KO_MACROPHAGE_10 MIN_UP	18	0.407	1.9126	0.0055	0.032	1	111	tags=44%, list=11%, signal=49%
524	GSE22886_DAY1_VS_DAY7_MONO CYTE_IN_CULTURE_UP	25	0.35	1.9102	0.0108	0.032	1	512	tags=88%, list=53%, signal=181%

525	GSE20715_WT_VS_TLR4_KO_LUN G_UP	19	0.4	1.9099	0.0129	0.032	1	174	tags=53%, list=18%, signal=63%
526	GSE45365_NK_CELL_VS_CD11B_D C_MCMV_INFECTION_DN	23	0.353	1.908	0.0056	0.032	1	220	tags=52%, list=23%, signal=66%
527	GSE37534_GW1929_VS_PIOGLITAZ ONE_TREATED_CD4_TCELL_PPAR G1_FOXP3_TRANSDUCE_UP	20	0.38	1.9079	0.0018	0.032	1	257	tags=60%, list=26%, signal=80%
528	GSE11864_CSF1_PAM3CYS_VS_CS F1_IFNG_PAM3CYS_IN_MAC_UP	15	0.432	1.9074	0.0093	0.032	1	303	tags=73%, list=31%, signal=105%
529	GSE24574_BCL6_HIGH_TFH_VS_T FH_CD4_TCELL_UP	20	0.381	1.9073	0.0058	0.032	1	143	tags=45%, list=15%, signal=52%
530	GSE2770_IL4_ACT_VS_ACT_CD4_T CELL_48H_DN	16	0.417	1.9027	0.0092	0.033	1	193	tags=56%, list=20%, signal=69%
531	GSE34156_UNTREATED_VS_6H_N OD2_AND_TLR1_TLR2_LIGAND_T REATED_MONOCYTE_DN	19	0.387	1.9017	0.0074	0.033	1	243	tags=58%, list=25%, signal=76%
532	GSE9601_NFKB_INHIBITOR_VS_PI 3K_INHIBITOR_TREATED_HCMV_ INF_MONOCYTE_DN	29	0.322	1.9003	0.009	0.033	1	248	tags=52%, list=25%, signal=67%
533	GSE30153_LUPUS_VS_HEALTHY_ DONOR_BCELL_DN	23	0.354	1.9003	0.0128	0.033	1	544	tags=91%, list=56%, signal=202%
534	GSE17974_2.5H_VS_72H_IL4_AND_ ANTI_IL12_ACT_CD4_TCELL_UP	19	0.38	1.8974	0.0092	0.034	1	465	tags=84%, list=48%, signal=158%
535	GSE3982_BCELL_VS_NKCELL_UP	23	0.361	1.8969	0.0037	0.034	1	390	tags=74%, list=40%, signal=120%
536	GSE7568_IL4_VS_IL4_AND_DEXA METHASONE_TREATED_MACROP HAGE_DN	16	0.424	1.8968	0.0113	0.034	1	502	tags=94%, list=52%, signal=190%
537	GSE13484_12H_UNSTIM_VS_YF17 D_VACCINE_STIM_PBMC_DN	24	0.356	1.8952	0.013	0.034	1	411	tags=75%, list=42%, signal=127%
538	GSE11057_PBMC_VS_MEM_CD4_T CELL_DN	28	0.333	1.895	0.0092	0.034	1	551	tags=89%, list=57%, signal=200%
539	GSE1925_CTRL_VS_IFNG_PRIMED _MACROPHAGE_24H_IFNG_STIM_ UP	19	0.386	1.8916	0.0058	0.035	1	201	tags=53%, list=21%, signal=65%
540	GSE3039_ALPHAALPHA_CD8_TCE LL_VS_B1_BCELL_UP	16	0.411	1.8911	0.0057	0.035	1	463	tags=88%, list=48%, signal=164%
541	GSE22501_PERIPHERAL_BLOOD_V S_CORD_BLOOD_TREG_DN	25	0.343	1.8905	0.0144	0.035	1	140	tags=44%, list=14%, signal=50%
542	GSE22140_GERMFREE_VS_SPF_AR THRITIC_MOUSE_CD4_TCELL_UP	24	0.359	1.8887	0.0098	0.035	1	267	tags=58%, list=27%, signal=78%
543	GSE19772_HCMV_INFL_VS_HCMV _INF_MONOCYTES_AND_PI3K_IN HIBITION_UP	16	0.417	1.8881	0.0094	0.035	1	348	tags=75%, list=36%, signal=115%
544	GSE3982_MAC_VS_NEUTROPHIL_ DN	15	0.436	1.8878	0.0166	0.035	1	555	tags=100%, list=57%, signal=229%

545	GSE6259_DEC205_POS_DC_VS_BCELL_DN	19	0.394	1.8877	0.0166	0.035	1	384	tags=74%, list=39%, signal=119%
546	GSE33292_WT_VS_TCF1_KO_DN3_THYMOCYTE_UP	18	0.396	1.8868	0.0131	0.035	1	486	tags=89%, list=50%, signal=174%
547	GSE12366_GC_VS_MEMORY_BCELL_DN	18	0.4	1.8866	0.011	0.035	1	482	tags=89%, list=49%, signal=173%
548	GSE21546_WT_VS_SAPIA_KO_ANTI_CD3_STIM_DP_THYMOCYTES_UP	18	0.393	1.8858	0.0075	0.035	1	267	tags=61%, list=27%, signal=83%
549	GSE7509_DC_VS_MONOCYTE_DN	29	0.325	1.8841	0.0037	0.036	1	240	tags=52%, list=25%, signal=67%
550	GSE13522_WT_VS_IFNAR_KO_SKIN_DN	26	0.334	1.8841	0.0198	0.036	1	275	tags=58%, list=28%, signal=78%
551	GSE360_CTRL_VS_L_DONOVANI_DC_DN	20	0.374	1.8835	0.0092	0.036	1	220	tags=55%, list=23%, signal=70%
552	GSE25123_WT_VS_PPARG_KO_MACROPHAGE_ROSIGLITAZONE_STIM_UP	17	0.407	1.8823	0.0108	0.036	1	232	tags=59%, list=24%, signal=76%
553	GSE12392_WT_VS_IFNAR_KO_CD8A_NEG_SPLEEN_DC_UP	31	0.307	1.8815	0.0108	0.036	1	558	tags=87%, list=57%, signal=197%
554	GSE45365_NK_CELL_VS_BCELL_MCMV_INFECTION_DN	24	0.349	1.8802	0.0092	0.036	1	282	tags=58%, list=29%, signal=80%
555	GSE29618_BCELL_VS_MONOCYTE_DN	24	0.355	1.8799	0.0088	0.036	1	413	tags=75%, list=42%, signal=127%
556	GSE33425_CD161_HIGH_VS_NEG_CD8_TCELL_UP	34	0.294	1.8793	0.0055	0.036	1	323	tags=59%, list=33%, signal=85%
557	GSE21063_WT_VS_NFATC1_KO_BCELL_UP	21	0.374	1.8791	0.0098	0.036	1	362	tags=71%, list=37%, signal=111%
558	GSE11057_CD4_EFF_MEM_VS_PBMC_DN	27	0.332	1.8778	0.0169	0.036	1	519	tags=85%, list=53%, signal=177%
559	GSE45365_HEALTHY_VS_MCMV_INFECTION_CD8A_DC_DN	22	0.36	1.8776	0.0096	0.036	1	431	tags=77%, list=44%, signal=135%
560	GSE369_SOCS3_KO_VS_WT_LIVER_POST_IL6_INJECTION_DN	23	0.353	1.8754	0.0128	0.037	1	389	tags=74%, list=40%, signal=120%
561	GSE21546_WT_VS_SAPIA_KO_AND_ELK1_KO_DP_THYMOCYTES_UP	15	0.426	1.8742	0.013	0.037	1	392	tags=80%, list=40%, signal=132%
562	GSE7460_WT_VS_FOXP3_HET_ACT_WITH_TGFB_TCONV_UP	16	0.415	1.8727	0.0092	0.037	1	465	tags=88%, list=48%, signal=165%
563	GSE14415_INDUCED_TREG_VS_FOXP3_KO_INDUCED_TREG_IL2_CULTURE_UP	27	0.339	1.8716	0.0119	0.037	1	256	tags=56%, list=26%, signal=73%
564	GSE12845_NAIVE_VS_DARKZONE_GC_TONSIL_BCELL_UP	19	0.384	1.8715	0.002	0.037	1	555	tags=95%, list=57%, signal=216%

565	GSE21670_STAT3_KO_VS_WT_CD4_TCELL_UP	28	0.323	1.8694	0.0164	0.038	1	463	tags=79%, list=48%, signal=145%
566	GSE14769_UNSTIM_VS_40MIN_LP_S_BMDM_DN	22	0.365	1.8693	0.0226	0.038	1	340	tags=68%, list=35%, signal=102%
567	GSE37532_WT_VS_PPARG_KO_VIS_CERAL_ADIPOSE_TISSUE_TCONV_UP	19	0.385	1.8666	0.0109	0.038	1	556	tags=95%, list=57%, signal=216%
568	GSE24574_BCL6_HIGH_TFH_VS_TFH_CD4_TCELL_DN	21	0.365	1.8663	0.0132	0.038	1	432	tags=81%, list=44%, signal=142%
569	GSE18804_SPLEEN_MACROPHAGE_VS_COLON_TUMORAL_MACROPHAGE_UP	33	0.302	1.8661	0.0055	0.038	1	542	tags=85%, list=56%, signal=185%
570	GSE45739_UNSTIM_VS_ACD3_ACID28_STIM_WT_CD4_TCELL_DN	43	0.268	1.8654	0.0146	0.038	1	357	tags=79%, list=39%, signal=88%
571	GSE37301_COMMON_LYMPHOID_PROGENITOR_VS_GRAN_MONO_PROGENITOR_DN	19	0.38	1.86	0.0073	0.039	1	383	tags=59%, list=25%, signal=128%
572	GSE3982_CENT_MEMORY_CD4_TCELL_VS_TH1_UP	17	0.4	1.8594	0.0073	0.039	1	248	tags=78%, list=37%, signal=99%
573	GSE5542_UNTREATED_VS_IFNG_TREATED_EPITHELIAL_CELLS_6H_DN	28	0.323	1.8578	0.0151	0.04	1	357	tags=59%, list=28%, signal=80%
574	GSE30971_CTRL_VS_LPS_STIM_MACROPHAGE_WBP7_KO_2H_DN	22	0.35	1.8576	0.0186	0.04	1	271	tags=72%, list=37%, signal=113%
575	GSE17721_0.5H_VS_24H_POLYIC_BMDC_DN	18	0.386	1.8562	0.0071	0.04	1	364	tags=67%, list=37%, signal=104%
576	GSE2585_THYMIC_DC_VS_MTEC_DN	24	0.334	1.856	0.0074	0.04	1	364	tags=84%, list=48%, signal=157%
577	GSE39916_B_CELL_SPLEEN_VS_PLASMA_CELL_BONE_MARROW_DN	19	0.383	1.8555	0.0124	0.04	1	463	tags=38%, list=15%, signal=44%
578	GSE22886_NAIVE_BCELL_VS_BM_PLASMA_CELL_UP	39	0.282	1.8548	0.0203	0.04	1	148	tags=71%, list=43%, signal=121%
579	GSE12845_IGD_NEG_BLOOD_VS_DARKZONE_GC_TONSIL_BCELL_UP	28	0.321	1.8547	0.0037	0.04	1	417	tags=74%, list=39%, signal=118%
580	GSE22886_NAIVE_CD4_TCELL_VS_12H_ACT_TH1_UP	19	0.383	1.8525	0.0165	0.041	1	379	tags=58%, list=25%, signal=76%
581	GSE25085_FETAL_LIVER_VS_FETAL_BM_SP4_THYMIC_IMPLANT_DN	19	0.385	1.8524	0.0131	0.041	1	246	tags=74%, list=39%, signal=118%
582	GSE2706_2H_VS_8H_R848_AND_LP_S_STIM_DC_DN	19	0.371	1.852	0.0184	0.041	1	380	tags=92%, list=56%, signal=203%
583	GSE5679_RARA_AGONIST_AM580_VS_AM580_AND_ROSIGLITAZONE_TREATED_DC_DN	24	0.346	1.8498	0.0206	0.041	1	546	tags=69%, list=39%, signal=110%
584	GSE6269_HEALTHY_VS_FLU_INF_PBMDC_DN	26	0.335	1.8486	0.0072	0.041	1	375	

585	GSE36476_CTRL_VS_TSST_ACT_16 H_MEMORY_CD4_TCELL_OLD_UP	25	0.334	1.8483	0.0149	0.041	1	308	tags=64%, list=32%, signal=91%
586	GSE24142_EARLY_THYMIC_PROG ENITOR_VS_DN2_THYMOCYTE_F ETAL_UP	27	0.324	1.8473	0.0039	0.041	1	395	tags=70%, list=41%, signal=115%
587	GSE41867_NAIVE_VS_DAY30_LCM V_CLONE13_EXHAUSTED_CD8_T CELL_UP	25	0.339	1.8462	0.0132	0.042	1	254	tags=52%, list=26%, signal=69%
588	GSE14908_RESTING_VS_HDM_STI M_CD4_TCELL_NONATOPIC_PATI ENT_DN	17	0.391	1.8453	0.0133	0.042	1	196	tags=53%, list=20%, signal=65%
589	KAECH_DAY8_EFF_VS_DAY15_EF F_CD8_TCELL_DN	24	0.344	1.8438	0.0074	0.042	1	311	tags=63%, list=32%, signal=90%
590	GSE22589_SIV_VS_HIV_AND_SIV_ INFECTED_DC_UP	26	0.329	1.8436	0.0135	0.042	1	512	tags=85%, list=53%, signal=174%
591	GSE21670_IL6_VS_TGFB_AND_IL6 _TREATED_CD4_TCELL_UP	20	0.377	1.843	0.0093	0.042	1	357	tags=70%, list=37%, signal=108%
592	GSE25123_CTRL_VS_ROSIGLITAZ ONE_STIM_PPARG_KO_MACROPH AGE_UP	26	0.33	1.8415	0.0076	0.042	1	578	tags=92%, list=59%, signal=221%
593	GSE11057_CD4_EFF_MEM_VS_PB MC_UP	22	0.357	1.839	0.0112	0.043	1	312	tags=64%, list=32%, signal=92%
594	GSE3982_MAST_CELL_VS_DC_DN	23	0.347	1.8363	0.0198	0.043	1	198	tags=48%, list=20%, signal=59%
595	GSE23114_PERITONEAL_CAVITY_ B1A_BCELL_VS_SPLEEN_BCELL_I N_SLE2C1_MOUSE_UP	20	0.373	1.8351	0.019	0.044	1	464	tags=85%, list=48%, signal=159%
596	GSE3920_UNTREATED_VS_IFNA_T REATED_ENDOTHELIAL_CELL_U P	25	0.334	1.834	0.0188	0.044	1	130	tags=40%, list=13%, signal=45%
597	GSE14699_NAIVE_VS_ACT_CD8_T CELL_UP	16	0.403	1.8332	0.0215	0.044	1	206	tags=56%, list=21%, signal=70%
598	GSE41867_MEMORY_VS_EXHAUS TED_CD8_TCELL_DAY30_LCMV_ UP	29	0.309	1.833	0.0093	0.044	1	397	tags=69%, list=41%, signal=113%
599	GSE360_DC_VS_MAC_DN	19	0.377	1.8299	0.0129	0.045	1	276	tags=63%, list=28%, signal=86%
600	GSE44649_WT_VS_MIR155_KO_AC TIVATED_CD8_TCELL_UP	25	0.332	1.8277	0.0152	0.045	1	512	tags=84%, list=53%, signal=173%
601	GSE7460_FOXP3_MUT_VS_HET_A CT_TCONV_UP	18	0.391	1.827	0.015	0.045	1	176	tags=50%, list=18%, signal=60%
602	GSE17721_LPS_VS_CPG_1H_BMDC _DN	16	0.403	1.827	0.0109	0.045	1	463	tags=88%, list=48%, signal=164%
603	GSE43955_TH0_VS_TGFB_IL6_TH1 7_ACT_CD4_TCELL_42H_DN	17	0.398	1.8239	0.0124	0.046	1	303	tags=65%, list=31%, signal=92%
604	GSE22282_HYPOXIA_VS_NORMOX IA_MYELOID_DC_DN	15	0.425	1.8224	0.0161	0.046	1	170	tags=53%, list=17%, signal=64%

605	GSE10273_HIGH_VS_LOW_IL7_TREATED_IRF4_8_NULL_PRE_BCELL_DN	24	0.336	1.8188	0.0165	0.047	1	465	tags=79%, list=48%, signal=148%
606	GSE20715_0H_VS_6H_OZONE_LUNG_UP	26	0.32	1.8151	0.0129	0.048	1	456	tags=77%, list=47%, signal=141%
607	GSE24292_WT_VS_PPARG_KO_MACROPHAGE_DN	26	0.328	1.8145	0.0158	0.048	1	310	tags=62%, list=32%, signal=88%
608	GSE14350_IL2RB_KO_VS_WT_TREG_UP	17	0.397	1.8132	0.0126	0.048	1	420	tags=82%, list=43%, signal=142%
609	GSE3920_IFNA_VS_IFNG_TREATED_FIBROBLAST_UP	25	0.326	1.8127	0.0152	0.048	1	578	tags=92%, list=59%, signal=220%
610	GSE17580_UNINFECTED_VS_S_MANSONI_INF_TREG_UP	21	0.364	1.8112	0.0162	0.049	1	235	tags=57%, list=24%, signal=74%
611	GSE17580_UNINFECTED_VS_S_MANSONI_INF_TEFF_UP	21	0.354	1.8086	0.0244	0.049	1	321	tags=67%, list=33%, signal=97%
612	GSE22589_HEALTHY_VS_HIV_INFECTED_DC_DN	20	0.37	1.8082	0.017	0.049	1	215	tags=55%, list=22%, signal=69%

Negative DEGs enrichment results in the C7									
follow link to MSigDB									
		SIZE	ES	NES	NOM p-val	FDR q-val	FWER p-val	RANK AT MAX	LEADING EDGE
1	GSE36476_CTRL_VS_TSST_ACT_72H_MEMORY_CD4_TCELL_YOUNG_DN	44	0.608	-4.565	0	0	0	290	tags=86%, list=30%, signal=117%
2	GSE36476_CTRL_VS_TSST_ACT_72H_MEMORY_CD4_TCELL_OLD_DN	48	0.602	-4.561	0	0	0	290	tags=85%, list=30%, signal=116%
3	GSE36476_CTRL_VS_TSST_ACT_40H_MEMORY_CD4_TCELL_OLD_DN	46	0.593	-4.498	0	0	0	290	tags=85%, list=30%, signal=115%
4	GSE15750_DAY6_VS_DAY10_TRAF6KO_EFF_CD8_TCELL_UP	41	0.646	-4.486	0	0	0	287	tags=90%, list=29%, signal=123%
5	GSE15750_DAY6_VS_DAY10_EFF_CD8_TCELL_UP	45	0.594	-4.452	0	0	0	287	tags=84%, list=29%, signal=114%
6	GSE39556_CD8A_DC_VS_NK_CELL_MOUSE_3H_POST_POLYIC_INJ_UP	52	0.564	-4.378	0	0	0	407	tags=96%, list=42%, signal=156%
7	GSE25088_WT_VS_STAT6_KO_MACROPHAGE_IL4_STIM_DN	46	0.575	-4.276	0	0	0	301	tags=87%, list=31%, signal=120%
8	GSE13547_CTRL_VS_ANTI_IGM_STIM_BCELL_12H_UP	43	0.566	-4.132	0	0	0	276	tags=81%, list=28%, signal=109%
9	GSE33292_WT_VS_TCF1_KO_DN3_THYMOCYTE_DN	45	0.548	-4.036	0	0	0	407	tags=93%, list=42%, signal=153%
10	GSE24634_TEFF_VS_TCONV_DAYS5_IN CULTURE UP	36	0.582	-3.913	0	0	0	383	tags=94%, list=39%, signal=150%

11	GSE22886_UNSTIM_VS_IL15_STIM_NKCELL_DN	38	-	0.567	-3.91	0	0	0	207	tags=74%, list=21%, signal=90%
12	GSE20715_0H_VS_48H_OZONE_LUNG_DN	32	-	0.612	-3.887	0	0	0	312	tags=91%, list=32%, signal=129%
13	GSE37532_WT_VS_PPARG_KO_VISCERAL_ADIPOSE_TISSUE_TREG_UP	35	-	0.591	-3.886	0	0	0	344	tags=91%, list=35%, signal=136%
14	GSE36476_CTRL_VS_TSST_ACT_40H_MEMORY_CD4_TCELL_YOUNG_DN	48	-	0.522	-3.88	0	0	0	290	tags=77%, list=30%, signal=104%
15	GSE3982_MEMORY_CD4_TCELL_VS_TH2_DN	36	-	0.575	-3.864	0	0	0	270	tags=81%, list=28%, signal=107%
16	GSE35543_IN_VITRO_ITREG_VS_CONVERTED_EX_ITREG_UP	38	-	0.562	-3.856	0	0	0	344	tags=89%, list=35%, signal=133%
17	GSE25088_WT_VS_STAT6_KO_MACROPHAGE_DN	46	-	0.508	-3.789	0	0	0	290	tags=78%, list=30%, signal=106%
18	GSE30962_PRIMARY_VS_SECONDARY_ACUTE_LCMV_INF_CD8_TCELL_UP	34	-	0.583	-3.721	0	0	0	279	tags=82%, list=29%, signal=111%
19	GSE7460_CD8_TCELL_VS_TREG_ACT_DN	24	-	0.647	-3.658	0	0	0	286	tags=92%, list=29%, signal=127%
20	GSE18893_TCONV_VS_TREG_24HTNF_STIM_UP	28	-	0.608	-3.656	0	0	0	275	tags=86%, list=28%, signal=116%
21	GSE21063_WT_VS_NFATC1_KO_8H_ANTI_IGM_STIM_BCELL_UP	39	-	0.532	-3.626	0	0	0	290	tags=79%, list=30%, signal=109%
22	GSE12845_IGD_POS_BLOOD_VS_PRE_GC_TONSIL_BCELL_DN	42	-	0.504	-3.589	0	0	0	289	tags=76%, list=30%, signal=104%
23	GSE22886_UNSTIM_VS_IL2_STIM_NKCELL_DN	37	-	0.517	-3.573	0	0	0	179	tags=65%, list=18%, signal=76%
24	GSE14415_NATURAL_TREG_VS_TCONV_DN	43	-	0.488	-3.559	0	0	0	276	tags=74%, list=28%, signal=99%
25	GSE1460_INTRATHYMIC_T_PROGENITOR_VS_NAIVE_CD4_TCELL_ADULT_BLOOD_UP	33	-	0.546	-3.537	0	0	0	408	tags=94%, list=42%, signal=156%
26	GSE24634_TREG_VS_TCONV_POST_DAY7_IL4_CONVERSION_UP	52	-	0.449	-3.533	0	0	0	290	tags=71%, list=30%, signal=96%
27	GSE40274_CTRL_VS_FOXP3_TRANSDUCED_ACTIVATED_CD4_TCELL_UP	33	-	0.556	-3.52	0	0	0	370	tags=91%, list=38%, signal=142%
28	GSE45365_HEALTHY_VS_MCMV_INFECTIION_CD11B_DC_DN	28	-	0.591	-3.48	0	0	0	287	tags=86%, list=29%, signal=118%
29	GSE24574_BCL6_LOW_TFH_VS_TCONV_CD4_TCELL_DN	36	-	0.515	-3.403	0	0	0	290	tags=78%, list=30%, signal=107%
30	GSE29614_CTRL_VS_TIV_FLU_VACCINE_PBMC_2007_DN	26	-	0.589	-3.373	0	0	0	290	tags=88%, list=30%, signal=123%



31	GSE14415_TCONV_VS_FOXP3_KO_INDUCED_TREG_DN	40	-	0.464	-3.353	0	0	0	279	tags=73%, list=29%, signal=97%
32	GSE15930_NAIVE_VS_48H_IN_VIT_RO_STIM_CD8_TCELL_DN	18	-	0.669	-3.351	0	0	0	335	tags=100%, list=34%, signal=150%
33	GSE29614_CTRL_VS_DAY7_TIV_FLU_VACCINE_PBMC_DN	41	-	0.459	-3.315	0	0	0	290	tags=76%, list=30%, signal=103%
34	GSE3982_NKCELL_VS_TH1_DN	31	-	0.535	-3.313	0	0	0	287	tags=81%, list=29%, signal=111%
35	GSE15930_NAIVE_VS_72H_IN_VIT_RO_STIM_IFNAB_CD8_TCELL_DN	36	-	0.497	-3.31	0	0	0	224	tags=69%, list=23%, signal=87%
36	GSE14415_INDUCED_VS_NATURAL_TREG_DN	39	-	0.482	-3.288	0	0	0	354	tags=82%, list=36%, signal=124%
37	GSE12366_GC_VS_MEMORY_BCELL_UP	34	-	0.512	-3.279	0	0	0	275	tags=76%, list=28%, signal=103%
38	GSE28726_NAIVE_CD4_TCELL_VS_NAIVE_VA24NEG_NKTCELL_UP	48	-	0.425	-3.268	0	0	0	300	tags=69%, list=31%, signal=94%
39	GOLDRATH_EFF_VS_MEMORY_CD8_TCELL_UP	60	-	0.391	-3.236	0	0	0	290	tags=65%, list=30%, signal=87%
40	GSE45365_WT_VS_IFNAR_KO_CD11B_DC_MCMV_INFECTION_DN	22	-	0.598	-3.23	0	0	0	287	tags=86%, list=29%, signal=120%
41	GSE15930_NAIVE_VS_24H_IN_VIT_RO_STIM_CD8_TCELL_DN	34	-	0.486	-3.219	0	0	0	360	tags=82%, list=37%, signal=126%
42	GSE10239_MEMORY_VS_KLRG1HIGH_EFF_CD8_TCELL_DN	26	-	0.548	-3.202	0	0	0	359	tags=88%, list=37%, signal=136%
43	GSE21670_UNTREATED_VS_TGFB_IL6_TREATED_CD4_TCELL_UP	24	-	0.588	-3.182	0	0	0	340	tags=92%, list=35%, signal=137%
44	GSE21063_CTRL_VS_ANTI_IGM_STIM_BCELL_NFATC1_KO_8H_DN	23	-	0.562	-3.17	0	0	0	290	tags=83%, list=30%, signal=115%
45	GSE7764_IL15_TREATED_VS_CTRL_NK_CELL_24H_UP	25	-	0.566	-3.165	0	0	0	301	tags=84%, list=31%, signal=118%
46	GSE27241_WT_VS_RORGT_KO_TH17_POLARIZED_CD4_TCELL_UP	28	-	0.518	-3.106	0	0	0	386	tags=89%, list=40%, signal=144%
47	GSE13547_2H_VS_12_H_ANTI_IGM_STIM_BCELL_UP	38	-	-0.45	-3.081	0	0	0	271	tags=68%, list=28%, signal=91%
48	GSE36826_WT_VS_IL1R_KO_SKIN_STAPH_AUREUS_INF_UP	35	-	0.463	-3.078	0	0	0	301	tags=74%, list=31%, signal=104%
49	GSE45365_WT_VS_IFNAR_KO_BCELL_MCMV_INFECTION_DN	18	-	0.626	-3.05	0	#### #	0.001	279	tags=89%, list=29%, signal=122%
50	GSE32164_ALTERNATIVELY_ACTIVATED_M2_VS_CMYC_INHIBITED_MACROPHAGE_DN	37	-	-0.45	-3.024	0	#### #	0.002	305	tags=73%, list=31%, signal=102%

51	GSE7218_UNSTIM_VS_ANTIGEN_S TIM_THROUGH_IGG_BCELL_UP	18	-	0.597	-3.022	0	#### #	0.002	262	tags=83%, list=27%, signal=112%
52	GSE28237_FOLLICULAR_VS_EARL Y_GC_BCELL_DN	21	-	0.565	-3.009	0	#### #	0.002	356	tags=90%, list=37%, signal=140%
53	GSE20715_0H_VS_48H_OZONE_TL R4_KO_LUNG_DN	21	-	0.574	-3.007	0	#### #	0.002	300	tags=86%, list=31%, signal=121%
54	GSE12366_GC_VS_NAIVE_BCELL_ UP	36	-	0.451	-2.994	0	#### #	0.002	290	tags=72%, list=30%, signal=99%
55	GSE21546_UNSTIM_VS_ANTI_CD3 _STIM_DP_THYMOCYTES_DN	17	-	0.633	-2.987	0	#### #	0.002	369	tags=100%, list=38%, signal=158%
56	GSE39110_DAY3_VS_DAY6_POST_ IMMUNIZATION_CD8_TCELL_DN	38	-	-0.44	-2.984	0	#### #	0.002	277	tags=78%, list=28%, signal=92%
57	GSE45365_HEALTHY_VS_MCMV_I NFECTION_CD11B_DC_IFNAR_KO _DN	23	-	0.539	-2.982	0	#### #	0.002	276	tags=107%, list=28%, signal=107%
58	GSE15930_NAIVE_VS_24H_IN_VIT RO_STIM_INFAB_CD8_TCELL_DN	34	-	0.449	-2.972	0	#### #	0.002	360	tags=79%, list=37%, signal=122%
59	GSE10239_NAIVE_VS_DAY4.5_EFF _CD8_TCELL_DN	36	-	-0.43	-2.943	0	#### #	0.002	356	tags=78%, list=37%, signal=118%
60	GSE21546_WT_VS_ELK1_KO_ANTI _CD3_STIM_DP_THYMOCYTES_D N	25	-	0.516	-2.939	0	#### #	0.002	377	tags=88%, list=39%, signal=140%
61	GSE5679_CTRL_VS_RARA_AGONI ST_AM580_TREATED_DC_UP	33	-	0.451	-2.93	0	#### #	0.002	290	tags=73%, list=30%, signal=100%
62	GSE17974_CTRL_VS_ACT_IL4_AN D_ANTI_IL12_24H_CD4_TCELL_D N	25	-	0.508	-2.928	0	#### #	0.003	369	tags=88%, list=38%, signal=138%
63	GSE13547_2H_VS_12_H_ANTI_IGM _STIM_BCELL_DN	30	-	0.461	-2.916	0	#### #	0.003	237	tags=67%, list=24%, signal=85%
64	GSE40274_FOXP3_VS_FOXP3_AND _EOS_TRANSDUCE_ACTIVATED _CD4_TCELL_DN	26	-	0.515	-2.916	0	#### #	0.003	277	tags=77%, list=28%, signal=105%
65	GSE14415_INDUCED_TREG_VS_TC ONV_UP	27	-	0.481	-2.901	0	#### #	0.006	344	tags=81%, list=35%, signal=122%
66	GSE21063_CTRL_VS_ANTI_IGM_S TIM_BCELL_16H_UP	27	-	0.476	-2.888	0	#### #	0.006	365	tags=81%, list=37%, signal=127%
67	GSE20727_CTRL_VS_ROS_INH_AN D_DNFB_ALLERGEN_TREATED_D C_DN	18	-	0.586	-2.885	0	#### #	0.006	209	tags=78%, list=21%, signal=97%
68	GSE24634_TEFF_VS_TCONV_DAY7 _IN_CULTURE_UP	55	-	0.354	-2.86	0	#### #	0.008	239	tags=55%, list=25%, signal=68%
69	GSE3982_CENT_MEMORY_CD4_T CELL_VS_TH2_DN	33	-	0.441	-2.848	0	#### #	0.01	365	tags=79%, list=37%, signal=122%
70	GSE33162_UNTREATED_VS_4H_LP S_STIM_HDAC3_KO_MACROPHAG E_DN	31	-	0.445	-2.836	0	#### #	0.01	354	tags=77%, list=36%, signal=118%

71	GSE3982_CENT_MEMORY_CD4_T CELL_VS_TH1_DN	41	-	0.397	-2.83	0	#### #	0.01	365	tags=76%, list=37%, signal=116%
72	GSE10239_NAIVE_VS_KLRG1HIGH _EFF_CD8_TCELL_DN	35	-	0.433	-2.829	0	#### #	0.01	328	tags=74%, list=34%, signal=108%
73	GSE3982_MEMORY_CD4_TCELL_V S_TH1_DN	33	-	0.432	-2.828	0	#### #	0.01	270	tags=67%, list=28%, signal=89%
74	GSE3982_EFF_MEMORY_CD4_TCE LL_VS_TH2_DN	27	-	0.486	-2.817	0	#### #	0.011	290	tags=74%, list=30%, signal=103%
75	GSE11386_NAIVE_VS_MEMORY_B CELL_UP	30	-	0.457	-2.816	0	#### #	0.011	271	tags=70%, list=28%, signal=94%
76	GSE21546_ELK1_KO_VS_SAPIA_K O_AND_ELK1_KO_DP_THYMOCY TES_DN	17	-	0.581	-2.813	0	#### #	0.011	272	tags=82%, list=28%, signal=112%
77	GSE22886_NAIVE_CD4_TCELL_VS _48H_ACT_TH2_DN	27	-	0.474	-2.807	0	#### #	0.015	359	tags=81%, list=37%, signal=125%
78	GSE2770_UNTREATED_VS_IL4_TR EATED_ACT_CD4_TCELL_48H_DN	25	-	0.504	-2.801	0	#### #	0.017	277	tags=76%, list=28%, signal=103%
79	GSE2405_S_AUREUS_VS_UNTREA TED_NEUTROPHIL_DN	40	-	0.394	-2.79	0	#### #	0.021	301	tags=68%, list=31%, signal=94%
80	GSE10239_MEMORY_VS_KLRG1IN T_EFF_CD8_TCELL_DN	28	-	0.453	-2.788	0	#### #	0.021	404	tags=86%, list=41%, signal=142%
81	GSE14415_INDUCED_TREG_VS_FA ILED_INDUCED_TREG_UP	27	-	0.461	-2.786	0	#### #	0.021	286	tags=70%, list=29%, signal=97%
82	GSE32986_UNSTIM_VS_GMCSF_A ND_CURDLAN_HIGHDOSE_STIM_ DC_UP	30	-	-0.45	-2.784	0	#### #	0.022	354	tags=80%, list=36%, signal=122%
83	GSE10239_MEMORY_VS_DAY4.5_ EFF_CD8_TCELL_DN	24	-	0.497	-2.78	0	#### #	0.023	312	tags=79%, list=32%, signal=114%
84	GSE13411_PLASMA_CELL_VS_ME MORY_BCELL_UP	29	-	0.453	-2.756	0	#### #	0.028	290	tags=72%, list=30%, signal=100%
85	GSE22601_DOUBLE_POSITIVE_VS _CD4_SINGLE_POSITIVE_THYMO CYTE_DN	26	-	0.465	-2.732	0	#### #	0.036	279	tags=73%, list=29%, signal=100%
86	GSE1460_INTRATHYMIC_T_PROG ENITOR_VS_NAIVE_CD4_TCELL_ CORD_BLOOD_UP	31	-	0.428	-2.726	0	#### #	0.038	390	tags=81%, list=40%, signal=130%
87	GSE21670_IL6_VS_TGFB_AND_IL6 _TREATED_CD4_TCELL_DN	24	-	0.477	-2.686	0	#### #	0.051	192	tags=63%, list=20%, signal=76%
88	GSE16450_IMMATURE_VS_MATU RE_NEURON_CELL_LINE_DN	20	-	-0.52	-2.668	0	#### #	0.058	179	tags=65%, list=18%, signal=78%
89	GSE31082_DN_VS_CD8_SP_THYM OCYTE_UP	17	-	0.568	-2.667	0	#### #	0.058	236	tags=76%, list=24%, signal=99%
90	GSE12392_CD8A_POS_VS_NEG_SP LEEN_DC_DN	31	-	0.424	-2.664	0	#### #	0.061	328	tags=74%, list=34%, signal=108%

91	GSE19888_CTRL_VS_A3R_INHIBIT OR_TREATED_MAST_CELL_UP	18	-	0.556	-2.662	0	#### #	0.061	391	tags=94%, list=40%, signal=155% tags=70%, list=30%, signal=97%
92	GSE3982_NKCELL_VS_TH2_DN	30	-	0.437	-2.66	0	#### #	0.061	290	tags=64%, list=30%, signal=87%
93	GSE28726_NAIVE_VS_ACTIVATED _CD4_TCELL_DN	44	-	0.356	-2.659	0	#### #	0.061	290	tags=79%, list=37%, signal=122%
94	GSE3982_EFF_MEMORY_CD4_TCE LL_VS_TH1_DN	28	-	0.439	-2.647	0	#### #	0.065	365	tags=61%, list=29%, signal=81%
95	GSE13547_CTRL_VS_ANTI_IGM_S TIM_BCELL_2H_UP	46	-	0.364	-2.64	0	#### #	0.073	279	tags=73%, list=29%, signal=101%
96	GSE7852_LN_VS_THYMUS_TCON V_DN	26	-	0.454	-2.633	0	#### #	0.077	287	tags=75%, list=23%, signal=96%
97	GSE14413_UNSTIM_VS_IFNB_STI M_RAW264_CELLS_UP	16	-	0.567	-2.62	0	#### #	0.085	222	tags=87%, list=41%, signal=145%
98	GSE21063_WT_VS_NFATC1_KO_B CELL_DN	23	-	0.478	-2.616	0	#### #	0.087	404	tags=80%, list=36%, signal=121%
99	GSE24671_BAKIMULC_VS_SENDA I_VIRUS_INFECTED_MOUSE_SPLE NOCYTES_UP	25	-	0.476	-2.606	0	#### #	0.096	348	tags=75%, list=23%, signal=95%
100	GSE16451_IMMATURE_VS_MATU RE_NEURON_CELL_LINE_WEST_E QUINE_ENC_VIRUS_UP	16	-	0.562	-2.601	0.0021	#### #	0.099	221	tags=94%, list=40%, signal=154%
101	GSE21360_SECONDARY_VS_TERTI ARY_MEMORY_CD8_TCELL_UP	16	-	0.553	-2.6	0	#### #	0.099	392	tags=71%, list=34%, signal=103%
102	GSE23568_CTRL_VS_ID3_TRANSD UCED_CD8_TCELL_DN	34	-	-0.39	-2.6	0	#### #	0.101	328	tags=78%, list=29%, signal=108%
103	GSE15930_NAIVE_VS_48H_IN_VIT RO_STIM_IFNAB_CD8_TCELL_DN	18	-	0.519	-2.597	0	#### #	0.104	285	tags=94%, list=40%, signal=154%
104	GSE22886_NAIVE_CD4_TCELL_VS _48H_ACT_TH1_DN	17	-	0.554	-2.595	0	#### #	0.108	391	tags=53%, list=24%, signal=66%
105	GSE24634_IL4_VS_CTRL_TREATE D_NAIVE_CD4_TCELL_DAY7_UP	51	-	0.325	-2.595	0	#### #	0.108	237	tags=75%, list=36%, signal=114%
106	GSE15930_NAIVE_VS_72H_IN_VIT RO_STIM_CD8_TCELL_DN	32	-	-0.41	-2.588	0	#### #	0.116	354	tags=94%, list=42%, signal=159%
107	GSE2770_IL12_AND_TGFB_VS_IL4 _TREATED_ACT_CD4_TCELL_6H UP	17	-	0.532	-2.58	0	#### #	0.119	407	tags=86%, list=40%, signal=141%
108	GSE24026_PD1_LIGATION_VS_CT RL_IN_ACT_TCELL_LINE_DN	22	-	0.471	-2.578	0	#### #	0.12	390	tags=94%, list=42%, signal=158%
109	GSE3920_UNTREATED_VS_IFNG_T REATED_ENDOTHELIAL_CELL_D N	17	-	0.543	-2.573	0	#### #	0.122	405	tags=80%, list=31%, signal=114%
110	GSE7460_CTRL_VS_TGFB_TREATE D_ACT_TREG_UP	20	-	0.491	-2.556	0	#### #	0.131	304	

111	GSE15930_NAIVE_VS_24H_IN_VIT RO_STIM_IL12_CD8_TCELL_DN	34	-	0.396	-2.553	0	#### #	0.135	360	tags=74%, list=37%, signal=113%
112	GSE5679_CTRL_VS_PPARG_LIGAN D_ROSIGLITAZONE_TREATED_DC _UP	30	-	-0.41	-2.549	0	#### #	0.14	290	tags=70%, list=30%, signal=97%
113	GSE15930_NAIVE_VS_72H_IN_VIT RO_STIM_IL12_CD8_TCELL_DN	34	-	0.393	-2.539	0	0.001	0.152	181	tags=53%, list=19%, signal=63%
114	GSE16451_CTRL_VS_WEST_EQUIN E_ENC_VIRUS_IMMATURE_NEUR ON_CELL_LINE_DN	24	-	0.447	-2.485	0	0.002	0.219	277	tags=71%, list=28%, signal=97%
115	GSE17974_0.5H_VS_72H_IL4_AND ANTI_IL12_ACT_CD4_TCELL_DN	21	-	0.472	-2.482	0	0.002	0.223	359	tags=81%, list=37%, signal=125%
116	GSE15930_NAIVE_VS_72H_IN_VIT RO_STIM_TRICHOSTATINA_CD8_ TCELL_DN	32	-	0.399	-2.477	0	0.002	0.229	224	tags=59%, list=23%, signal=75%
117	GSE13547_WT_VS_ZFX_KO_BCEL L_ANTI_IGM_STIM_2H_UP	23	-	0.449	-2.465	0	0.002	0.243	404	tags=87%, list=41%, signal=145%
118	GSE15930_NAIVE_VS_48H_IN_VIT RO_STIM_IL12_CD8_TCELL_DN	20	-	-0.49	-2.464	0	0.002	0.243	283	tags=75%, list=29%, signal=104%
119	GSE25085_FETAL_LIVER_VS_ADU LT_BM_SP4_THYMIC_IMPLANT_D N	22	-	0.468	-2.462	0	0.002	0.247	407	tags=86%, list=42%, signal=145%
120	GSE17974_CTRL_VS_ACT_IL4_AN D_ANTI_IL12_12H_CD4_TCELL_D N	15	-	0.545	-2.447	0	0.002	0.27	270	tags=80%, list=28%, signal=109%
121	GSE22886_NAIVE_CD4_TCELL_VS _12H_ACT_TH1_DN	24	-	0.438	-2.443	0	0.002	0.274	304	tags=71%, list=31%, signal=100%
122	GSE24634_TEFF_VS_TCONV_DAY3 _IN_CULTURE_UP	25	-	0.422	-2.431	0	0.002	0.298	290	tags=68%, list=30%, signal=94%
123	GSE17974_0H_VS_24H_IN_VITRO_ ACT_CD4_TCELL_DN	23	-	0.448	-2.423	0	0.002	0.31	275	tags=70%, list=28%, signal=95%
124	GSE22601_CD4_SINGLE_POSITIVE _VS_CD8_SINGLE_POSITIVE_THY MOCYTE_UP	23	-	0.437	-2.423	0	0.002	0.31	340	tags=78%, list=35%, signal=117%
125	GSE7460_CTRL_VS_FOXP3_OVERE XPR_TCONV_1_UP	17	-	0.491	-2.419	0.0021	0.002	0.319	236	tags=71%, list=24%, signal=92%
126	GSE17721_POLYIC_VS_CPG_16H_B MDC_DN	15	-	0.532	-2.417	0	0.002	0.323	336	tags=87%, list=34%, signal=130%
127	GSE13485_DAY1_VS_DAY21_YF17 D_VACCINE_PBMC_DN	16	-	-0.52	-2.404	0	0.002	0.351	401	tags=94%, list=41%, signal=157%
128	GSE24634_NAIVE_CD4_TCELL_VS _DAY7_IL4_CONV_TREG_DN	37	-	0.355	-2.396	0	0.003	0.365	286	tags=62%, list=29%, signal=85%
129	GSE43863_TH1_VS_LY6C_INT_CX CR5POS_EFFECTOR_CD4_TCELL_ UP	24	-	-0.43	-2.39	0	0.003	0.384	344	tags=79%, list=35%, signal=119%
130	GSE10240_CTRL_VS_IL17_AND_IL 22_STIM_PRIMARY_BRONCHIAL_ EPITHELIAL_CELLS_UP	20	-	0.472	-2.387	0	0.003	0.397	301	tags=75%, list=31%, signal=106%

131	GSE27786_LIN_NEG_VS_CD8_TCELL_UP	28	-	0.399	-2.385	0	0.003	0.399	176	tags=54%, list=18%, signal=64%
132	GSE14350_TREG_VS_TEFF_IN_IL2_RB_KO_DN	23	-	0.435	-2.382	0	0.003	0.405	277	tags=70%, list=28%, signal=95%
133	GSE21670_UNTREATED_VS_TGFB_IL6_TREATED_STAT3_KO_CD4_TCELL_UP	27	-	0.409	-2.38	0	0.003	0.407	152	tags=52%, list=16%, signal=60%
134	GSE20727_CTRL_VS_ROS_INHIBITOR_TREATED_DC_UP	15	-	0.543	-2.376	0	0.003	0.419	334	tags=87%, list=34%, signal=130%
135	GSE21927_SPLEEN_C57BL6_VS_EL4_TUMOR_BALBC_MONOCYTES_DN	16	-	0.519	-2.373	0	0.003	0.426	306	tags=81%, list=31%, signal=117%
136	GSE30962_ACUTE_VS_CHRONIC_LCMV_SECONDARY_INF_CD8_TCELL_DN	35	-	0.359	-2.371	0	0.003	0.431	290	tags=60%, list=30%, signal=82%
137	GSE17974_CTRL_VS_ACT_IL4_AND_ANTI_IL12_48H_CD4_TCELL_DN	26	-	0.409	-2.37	0	0.003	0.435	367	tags=77%, list=38%, signal=120%
138	GSE45365_WT_VS_IFNAR_KO_BCELL_DN	23	-	0.421	-2.363	0	0.003	0.453	287	tags=70%, list=29%, signal=96%
139	GSE360_L_DONOVANI_VS_T_GONDI_DC_DN	18	-	0.497	-2.36	0.0021	0.003	0.463	169	tags=61%, list=17%, signal=73%
140	GSE8685_IL2_STARVED_VS_IL2_ACT_IL2_STARVED_CD4_TCELL_DN	20	-	0.453	-2.356	0	0.003	0.47	407	tags=85%, list=42%, signal=143%
141	GSE14415_ACT_VS_CTRL_NATURAL_TREG_UP	22	-	-0.44	-2.352	0	0.003	0.484	286	tags=73%, list=29%, signal=101%
142	GSE13547_2H_VS_12_H_ANTI_IGM_STIM_ZFX_KO_BCELL_DN	32	-	0.372	-2.348	0	0.003	0.492	276	tags=66%, list=28%, signal=89%
143	GSE1460_DP_THYMOCYTE_VS_NAIVE_CD4_TCELL_CORD_BLOOD_UP	27	-	0.394	-2.344	0	0.003	0.504	390	tags=78%, list=40%, signal=126%
144	GSE37534_UNTREATED_VS_GW1929_TREATED_CD4_TCELL_PPARG_1_AND_FOXP3_TRASDUCED_DN	30	-	0.377	-2.339	0.0021	0.003	0.514	295	tags=67%, list=30%, signal=93%
145	GSE41176_WT_VS_TAK1_KO_ANTI_IGM_STIM_BCELL_24H_UP	20	-	0.448	-2.328	0	0.004	0.549	309	tags=75%, list=32%, signal=108%
146	GSE2770_IL12_ACT_VS_ACT_CD4_TCELL_2H_DN	16	-	0.503	-2.327	0	0.004	0.55	265	tags=75%, list=27%, signal=101%
147	GSE27786_LIN_NEG_VS_NKTCELL_UP	25	-	0.414	-2.326	0.0044	0.004	0.554	356	tags=76%, list=37%, signal=117%
148	GSE32986_UNSTIM_VS_CURDLAN_HIGHDOSE_STIM_DC_UP	20	-	0.447	-2.322	0	0.004	0.565	355	tags=80%, list=36%, signal=123%
149	GSE9878_CTRL_VS_EBF_TRANSDUCED_PAX5_KO_PRO_BCELL_DN	27	-	0.395	-2.317	0.0021	0.004	0.575	301	tags=67%, list=31%, signal=94%
150	GSE39556_UNTREATED_VS_3H_POLYIC_INJ_MOUSE_NK_CELL_UP	43	-	0.316	-2.31	0	0.004	0.592	178	tags=44%, list=18%, signal=52%

151	GSE40666_WT_VS_STAT1_KO_CD8_TCELL_WITH_IFNA_STIM_90MIN_DN	36	-	0.337	-2.281	0	0.005	0.658	277	tags=58%, list=28%, signal=79%
152	GSE24634_TREG_VS_TCONV_POST_DAY5_IL4_CONVERSION_UP	19	-	0.457	-2.277	0.0021	0.005	0.666	385	tags=84%, list=40%, signal=137%
153	GSE17721_CTRL_VS_CPG_12H_BMDC_UP	16	-	0.485	-2.272	0	0.005	0.682	279	tags=75%, list=29%, signal=103%
154	GSE19941_UNSTIM_VS_LPS_AND_IL10_STIM_IL10_KO_MACROPHAGE_DN	25	-	0.399	-2.269	0	0.005	0.688	286	tags=68%, list=29%, signal=94%
155	GSE41087_WT_VS_FOXP3_MUT_ANTICD3_CD28_STIM_CD4_TCELL_DN	30	-	0.362	-2.269	0	0.005	0.688	346	tags=70%, list=36%, signal=105%
156	GSE32164_RESTING_DIFFERENTIATED_VS_ALTERNATIVELY_ACTIVATED_MACROPHAGE_UP	35	-	0.344	-2.268	0	0.005	0.695	279	tags=60%, list=29%, signal=81%
157	GSE2770_UNTREATED_VS_IL12_TREATED_ACT_CD4_TCELL_2H_DN	15	-	-0.5	-2.265	0	0.005	0.703	369	tags=87%, list=38%, signal=137%
158	GSE3982_NEUTROPHIL_VS_TH2_DN	17	-	0.484	-2.264	0.0021	0.005	0.705	338	tags=82%, list=35%, signal=124%
159	GSE3982_BASOPHIL_VS_TH1_DN	21	-	0.431	-2.261	0.0022	0.005	0.716	328	tags=76%, list=34%, signal=112%
160	GSE19941_LPS_VS_LPS_AND_IL10_STIM_IL10_KO_MACROPHAGE_UP	21	-	0.429	-2.258	0.0043	0.006	0.725	346	tags=76%, list=36%, signal=116%
161	GSE1460_DP_THYMOCYTE_VS_NAIVE_CD4_TCELL_ADULT_BLOOD_UP	24	-	0.408	-2.254	0.0043	0.006	0.738	173	tags=54%, list=18%, signal=64%
162	GSE24634_TREG_VS_TCONV_POST_DAY3_IL4_CONVERSION_UP	26	-	0.379	-2.253	0	0.006	0.738	352	tags=73%, list=36%, signal=111%
163	GSE9988_ANTI_TREM1_VS_VEHICLE_TREATED_MONOCYTES_UP	17	-	0.476	-2.246	0	0.006	0.755	168	tags=59%, list=17%, signal=70%
164	GSE20366_EX_VIVO_VS_HOMEOSTATIC_CONVERSION_TREG_DN	26	-	0.392	-2.243	0.0046	0.006	0.762	328	tags=69%, list=34%, signal=102%
165	GSE36826_NORMAL_VS_STAPH_AUREUS_INF_IL1R_KO_SKIN_UP	30	-	0.365	-2.238	0	0.006	0.777	231	tags=57%, list=24%, signal=72%
166	GSE22886_IGM_MEMORY_BCELL_VS_BLOOD_PLASMA_CELL_DN	22	-	0.422	-2.234	0	0.006	0.782	309	tags=73%, list=32%, signal=104%
167	GSE3982_DC_VS_MAC_DN	25	-	0.391	-2.223	0	0.007	0.805	133	tags=48%, list=14%, signal=54%
168	GSE24634_NAIVE_CD4_TCELL_VS_DAY10_IL4_CONV_TREG_DN	30	-	0.356	-2.212	0	0.007	0.831	221	tags=53%, list=23%, signal=67%
169	GSE17301_IFNA2_VS_IFNA5_STIM_ACD3_ACD28_ACT_CD8_TCELL_DN	27	-	-0.37	-2.208	0	0.008	0.836	338	tags=70%, list=35%, signal=105%
170	GSE19941_IL10_KO_VS_IL10_KO_AND_NFKBP50_KO_LPS_AND_IL10_STIM_MACROPHAGE_DN	26	-	0.386	-2.206	0	0.008	0.837	356	tags=73%, list=37%, signal=112%

171	GSE21063_3H_VS_16H_ANTI_IGM_STIM_NFATC1_KOBCELL_DN	17	-	0.463	-2.199	0.0043	0.008	0.856	269	tags=71%, list=28%, signal=96%
172	GSE24574_BCL6_HIGH_VS_LOW_TFH_CD4_TCELL_DN	34	-	0.334	-2.188	0	0.008	0.867	277	tags=59%, list=28%, signal=79%
173	GSE1740_MCSF_VS_MCSF_AND_IFNG_DAY2_DERIVED_MACROPHAGE_WITH_IFNA_STIM_UP	19	-	0.428	-2.188	0	0.008	0.867	358	tags=79%, list=37%, signal=122%
174	GSE22527_ANTI_CD3_INVIVO_VS_UNTREATED_MOUSE_TREG_DN	19	-	0.429	-2.179	0.0023	0.009	0.878	367	tags=79%, list=38%, signal=124%
175	GSE7568_IL4_VS_IL4_AND_TGFB_TREATED_MACROPHAGE_24H_DN	21	-	0.422	-2.176	0	0.009	0.879	335	tags=76%, list=34%, signal=114%
176	GSE18203_CTRL_VS_INTRATUMORAL_CPG_INJ_MC38_TUMOR_DN	28	-	0.371	-2.176	0	0.009	0.88	173	tags=50%, list=18%, signal=59%
177	GSE43863_TH1_VS_LY6C_LOW_CXCR5NEG_EFFECTOR_CD4_TCELL_UP	15	-	0.484	-2.169	0	0.009	0.895	271	tags=73%, list=28%, signal=100%
178	GSE27859_DC_VS_CD11C_INT_F480_HI_MACROPHAGE_UP	15	-	0.471	-2.166	0	0.009	0.903	396	tags=87%, list=41%, signal=144%
179	GSE32986_UNSTIM_VS_GMCSF_AND_CURDLAN_LOWDOSE_STIM_DC_UP	19	-	0.434	-2.142	0	0.011	0.928	187	tags=58%, list=19%, signal=70%
180	GSE411_WT_VS_SOCS3_KO_MACROPHAGE_UP	22	-	0.396	-2.141	0.0023	0.011	0.928	333	tags=73%, list=34%, signal=108%
181	GSE19198_CTRL_VS_IL21_TREATED_TCELL_1H_DN	16	-	0.469	-2.141	0.0045	0.011	0.928	145	tags=56%, list=15%, signal=65%
182	GSE21927_GMCSF_IL6_VS_GMCSF_GCSF_TREATED_BONE_MARROW_DN	19	-	0.415	-2.14	0.0043	0.011	0.928	323	tags=74%, list=33%, signal=108%
183	GSE23568_ID3_KO_VS_WT_CD8_TCELL_UP	35	-	0.312	-2.134	0	0.011	0.933	286	tags=60%, list=29%, signal=82%
184	GSE8685_IL2_STARVED_VS_IL21_ACT_IL2_STARVED_CD4_TCELL_UP	15	-	0.463	-2.125	0.0041	0.012	0.943	178	tags=60%, list=18%, signal=72%
185	GSE9988_LOW_LPS_VS_ANTI_TREPM1_AND_LPS_MONOCYTE_DN	21	-	0.407	-2.116	0.0043	0.013	0.95	250	tags=62%, list=26%, signal=81%
186	GSE7768_OVA_ALONE_VS_OVA_WITH_MPL_IMMUNIZED_MOUSE_WHOLE_SPLEEN_6H_UP	17	-	-0.44	-2.108	0.0021	0.013	0.96	347	tags=76%, list=36%, signal=117%
187	GSE22886_UNSTIM_VS_STIM_MEMORY_TCELL_DN	22	-	-0.38	-2.104	0	0.014	0.96	306	tags=68%, list=31%, signal=97%
188	GSE46606_IRF4_KO_VS_WT_CD40L_IL2_IL5_3DAY_STIMULATED_BCELL_UP	24	-	0.368	-2.098	0.0067	0.014	0.964	144	tags=46%, list=15%, signal=52%
189	GSE31082_DP_VS_CD4_SP_THYMOCYTE_UP	16	-	0.446	-2.082	0.0044	0.015	0.978	327	tags=75%, list=34%, signal=111%
190	GSE19825_NAIVE_VS_DAY3_EFFECTOR_CD8_TCELL_DN	17	-	0.433	-2.082	0.0021	0.015	0.978	363	tags=82%, list=37%, signal=129%



191	GSE39110_DAY3_VS_DAY6_POST IMMUNIZATION_CD8_TCELL_WIT H_IL2_TREATMENT_UP	23	-	0.375	-2.082	0	0.015	0.978	246	tags=61%, list=25%, signal=80%
192	GSE17301_ACD3_ACD28_VS_ACD3 _ACD28_AND_IFNA2_STIM_CD8_T CELL_UP	24	-	0.379	-2.075	0.0022	0.016	0.982	403	tags=79%, list=41%, signal=132%
193	GSE27859_DC_VS_CD11C_INT_F48 0_INT_DC_DN	17	-	0.429	-2.074	0.0021	0.016	0.983	285	tags=71%, list=29%, signal=98%
194	GSE22589_HEALTHY_VS_HIV_AN D_SIV_INFECTED_DC_UP	15	-	0.453	-2.073	0	0.016	0.984	407	tags=87%, list=42%, signal=147%
195	GSE12845_IGD_NEG_BLOOD_VS_P RE_GC_TONSIL_BCELL_DN	27	-	0.355	-2.073	0.0023	0.016	0.984	216	tags=52%, list=22%, signal=65%
196	GSE29164_UNTREATED_VS_CD8 TCELL_AND_IL12_TREATED_MEL ANOMA_DAY3_DN	20	-	0.397	-2.072	0.0045	0.016	0.985	365	tags=75%, list=37%, signal=117%
197	GSE17186_CD21LOW_VS_CD21HIG H_TRANSITIONAL_BCELL_DN	21	-0.39	-2.069	0	0.016	0.985	268	tags=62%, list=28%, signal=84%	
198	GSE17301_CTRL_VS_48H_ACD3_A CD28_IFNA5_STIM_CD8_TCELL_D N	19	-	0.402	-2.068	0.0084	0.016	0.985	340	tags=74%, list=35%, signal=111%
199	GSE22886_NAIVE_BCELL_VS_BLO OD_PLASMA_CELL_DN	21	-	0.383	-2.067	0.002	0.016	0.986	309	tags=67%, list=32%, signal=96%
200	GSE369_SOCS3_KO_VS_IFNG_KO_ LIVER_DN	23	-	0.377	-2.065	0.0022	0.016	0.987	355	tags=74%, list=36%, signal=114%
201	KAECH_DAY8_EFF_VS_DAY15_EF F_CD8_TCELL_UP	29	-	0.336	-2.063	0.0043	0.016	0.987	407	tags=76%, list=42%, signal=126%
202	GSE5099_UNSTIM_VS_MCSF_TRE ATED_MONOCYTE_DAY7_UP	15	-	0.457	-2.055	0.002	0.017	0.991	394	tags=87%, list=40%, signal=143%
203	GSE360_L_DONOVANI_VS_T_GON DII_MAC_DN	19	-	0.406	-2.048	0.0021	0.018	0.993	306	tags=68%, list=31%, signal=98%
204	GSE22033_WT_VS_PPARG_KO_ME F_DN	19	-	0.404	-2.045	0.009	0.018	0.995	376	tags=79%, list=39%, signal=126%
205	GSE22919_RESTING_VS_IL2_IL12_I L15_STIM_NK_CELL_UP	19	-	0.394	-2.042	0.0084	0.018	0.996	436	tags=84%, list=45%, signal=149%
206	GSE3982_EOSINOPHIL_VS_TH2_D N	21	-	0.381	-2.04	0.0044	0.018	0.996	347	tags=71%, list=36%, signal=109%
207	GSE36891_UNSTIM_VS_PAM_TLR2 _STIM_PERITONEAL_MACROPHA GE_UP	17	-	0.426	-2.032	0	0.019	0.998	240	tags=65%, list=25%, signal=84%
208	GSE3982_BCELL_VS_TH1_DN	38	-	0.296	-2.031	0.0021	0.019	0.998	207	tags=47%, list=21%, signal=58%
209	GSE5542_IFNA_VS_IFNA_AND_IFN G_TREATED_EPITHELIAL_CELLS_ 24H_DN	21	-	0.392	-2.016	0.0042	0.021	0.999	301	tags=67%, list=31%, signal=94%
210	GSE21670_STAT3_KO_VS_WT_CD4 _TCELL_TGFB_TREATED_UP	18	-	0.409	-2.015	0.0043	0.021	0.999	323	tags=72%, list=33%, signal=106%

211	GSE33162 UNTREATED_VS_4H_LP S_STIM_HDAC3_KO_MACROPHAG E_UP	33	-	0.305	-2.012	0.007	0.021	0.999	301	tags=61%, list=31%, signal=85%
212	GSE15271 CXCR4_POS_VS_NEG_G C_BCELL_UP	17	-	0.421	-2.01	0.0045	0.021	0.999	407	tags=82%, list=42%, signal=139%
213	GSE25088 WT_VS_STAT6_KO_MA CROPHAGE_ROSIGLITAZONE_AN D_IL4_STIM_UP	16	-	0.434	-2.009	0.0065	0.021	0.999	276	tags=69%, list=28%, signal=94%
214	GSE17721 POLYIC_VS_PAM3CSK4 _16H_BMDC_DN	20	-	0.392	-2.008	0	0.021	0.999	267	tags=65%, list=27%, signal=88%
215	GSE13547 CTRL_VS_ANTI_IGM_S TIM_ZFX_KO_BCELL_2H_UP	36	-	0.304	-2.006	0.0067	0.022	0.999	354	tags=67%, list=36%, signal=101%
216	GSE27786 LSK_VS_NKTCELL_UP	19	-	0.407	-2.005	0.0087	0.022	0.999	195	tags=58%, list=20%, signal=71%
217	GSE32986 GMCSF_VS_GMCSF_AN D_CURDLAN_LOWDOSE_STIM_D C_UP	28	-	0.336	-1.997	0.0111	0.023	0.999	354	tags=68%, list=36%, signal=104%
218	GSE40068 BCL6_POS_VS_NEG_CX CR5_POS_TFH_UP	22	-	0.364	-1.989	0.0023	0.023	0.999	263	tags=59%, list=27%, signal=79%
219	GSE30962 PRIMARY_VS_SECOND ARY_CHRONIC_LCMV_INF_CD8_T CELL_UP	20	-	0.387	-1.988	0.0066	0.024	0.999	445	tags=85%, list=46%, signal=153%
220	GSE10239 NAIVE_VS_MEMORY_C D8_TCELL_UP	16	-	0.431	-1.987	0.0065	0.024	0.999	372	tags=81%, list=38%, signal=129%
221	GSE2770 TGFB_AND_IL4_VS_IL4 TREATED_ACT_CD4_TCELL_2H_D N	16	-	0.432	-1.984	0	0.024	0.999	335	tags=75%, list=34%, signal=112%
222	GSE3039 ALPHAALPHA_CD8_TCE LL_VS_B1_BCELL_DN	26	-	0.341	-1.975	0.0082	0.025	1	176	tags=50%, list=18%, signal=59%
223	GSE34205 HEALTHY_VS_RSV_INF _INFANT_PBMC_DN	15	-	0.444	-1.973	0.0042	0.025	1	369	tags=80%, list=38%, signal=127%
224	GSE10239 NAIVE_VS_KLRG1INT_ EFF_CD8_TCELL_DN	27	-	0.337	-1.972	0.0023	0.025	1	386	tags=74%, list=40%, signal=119%
225	GSE22432 MULTIPOTENT_PROGE NITOR_VS_CDC_DN	18	-	0.396	-1.964	0.0066	0.026	1	376	tags=78%, list=39%, signal=124%
226	GSE17721_0.5H_VS_4H_POLYIC_B MDC_UP	15	-	0.436	-1.964	0.0065	0.026	1	467	tags=93%, list=48%, signal=177%
227	GSE22886_DAY0_VS_DAY7_MONO CYTE_IN_CULTURE_DN	26	-	0.331	-1.962	0.0086	0.027	1	308	tags=62%, list=32%, signal=88%
228	GSE32986 UNSTIM_VS_CURDLAN _LOWDOSE_STIM_DC_DN	29	-	0.318	-1.961	0.009	0.027	1	221	tags=52%, list=23%, signal=65%
229	GSE9006 HEALTHY_VS_TYPE_1_D IABETES_PBMC_1MONTH_POST_ DX_UP	26	-	0.335	-1.96	0.0108	0.027	1	427	tags=77%, list=44%, signal=133%
230	GSE17721_CTRL_VS_CPG_0.5H_B MDC_UP	19	-	0.388	-1.96	0.0022	0.027	1	405	tags=79%, list=42%, signal=133%

231	GSE17301_ACD3_ACD28_VS_ACD3_ACD28_AND_IFNA5_STIM_CD8_TCELL_UP	25	0.348	-1.958	0.0044	0.027	1	290	tags=60%, list=30%, signal=83%
232	GSE17974_0H_VS_6H_IN_VITRO_ACT_CD4_TCELL_DN	16	0.428	-1.957	0.0042	0.027	1	177	tags=56%, list=18%, signal=68%
233	GSE20754_WT_VS_TCF1_KO_MEMORY_CD8_TCELL_DN	16	-0.42	-1.952	0.0088	0.028	1	124	tags=50%, list=13%, signal=56%
234	GSE19888_ADENOSINE_A3R_ACT_VS_A3R_ACT_WITH_A3R_INH_PRETREATMENT_IN_MAST_CELL_UP	17	0.413	-1.951	0.0062	0.028	1	470	tags=88%, list=48%, signal=168%
235	GSE360_HIGH_VS_LOW_DOSE_BMALAYI_DC_UP	15	0.422	-1.942	0.0065	0.029	1	405	tags=80%, list=42%, signal=135%
236	GSE3982_NEUTROPHIL_VS_TH1_DN	20	0.381	-1.938	0.0066	0.03	1	386	tags=75%, list=40%, signal=122%
237	GSE360_L_MAJOR_VS_T_GONDII_MAC_DN	21	0.374	-1.932	0.0089	0.03	1	187	tags=52%, list=19%, signal=63%
238	GSE22432_CDC_VS_COMMON_DC_PROGENITOR_DN	22	0.353	-1.929	0.0064	0.031	1	216	tags=55%, list=22%, signal=69%
239	GSE5589_WT_VS_IL10_KO_LPS_STIM_MACROPHAGE_45MIN_UP	16	0.416	-1.928	0.0063	0.031	1	176	tags=56%, list=18%, signal=68%
240	GSE20152_SPHK1_KO_VS_WT_HTNFA_OVERXPRESS_ANKLE_DN	18	0.388	-1.925	0.0106	0.031	1	389	tags=78%, list=40%, signal=127%
241	GSE39110_UNTREATED_VS_IL2_TREATED_CD8_TCELL_DAY3_POSTIMMUNIZATION_DN	18	0.389	-1.924	0.0143	0.031	1	290	tags=67%, list=30%, signal=93%
242	GSE5142_HTERT_TRANSDUCE_VS_CTRL_CD8_TCELL_LATE_PASSAGE_CLONE_UP	24	0.334	-1.924	0.0147	0.031	1	347	tags=67%, list=36%, signal=101%
243	GSE24634_TREG_VS_TCONV_POST_DAY10_IL4_CONVERSION_UP	42	0.263	-1.924	0.0121	0.031	1	125	tags=33%, list=13%, signal=37%
244	GSE12198_NK_VS_NK_ACT_EXPANSION_SYSTEM_DERIVED_NK_CELL_DN	16	0.405	-1.91	0.0022	0.034	1	302	tags=69%, list=31%, signal=98%
245	GSE1432_CTRL_VS_IFNG_6H_MICROGLIA_UP	21	0.363	-1.906	0.0135	0.034	1	629	tags=100%, list=65%, signal=276%
246	GSE10273_LOW_IL7_VS_HIGH_IL7_AND_IRF4_IN_IRF4_8_NULL_PREBCELL_UP	19	0.386	-1.905	0.0042	0.034	1	228	tags=58%, list=23%, signal=74%
247	GSE12845_IGD_POS_BLOOD_VS_DARKZONE_GC_TONSIL_BCELL_DN	24	0.332	-1.905	0.0139	0.034	1	367	tags=71%, list=38%, signal=111%
248	GSE36095_WT_VS_HDAC9_KO_TREG_UP	19	0.374	-1.903	0.0112	0.034	1	91	tags=42%, list=9%, signal=46%
249	GSE9988_LPS_VS_LPS_AND_ANTI_TREMI_MONOCYTE_DN	21	0.359	-1.899	0.0044	0.035	1	250	tags=57%, list=26%, signal=75%
250	GSE3039_CD4_TCELL_VS_NKT_CELL_DN	21	0.356	-1.898	0.0066	0.035	1	398	tags=76%, list=41%, signal=126%

251	GSE12392_WT_VS_IFNB_KO_CD8A _NEG_SPLEEN_DC_UP	15	-	0.418	-1.897	0.0085	0.035	1	321	tags=73%, list=33%, signal=108%
252	GSE2770_IL12_VS_IL4_TREATED_ ACT_CD4_TCELL_48H_UP	18	-	0.383	-1.894	0.0115	0.036	1	286	tags=67%, list=29%, signal=93%
253	GSE17721_LPS_VS_GARDIQUIMO D_24H_BMDC_DN	21	-	0.351	-1.882	0.0066	0.038	1	356	tags=71%, list=37%, signal=110%
254	GSE24574_BCL6_LOW_TFH_VS_TC ONV_CD4_TCELL_UP	23	-	0.344	-1.881	0.0104	0.038	1	184	tags=48%, list=19%, signal=58%
255	GSE22432_CONVENTIONAL_CDC_ VS_PLASMACYTOID_PDC_UP	20	-	0.366	-1.88	0.0173	0.038	1	407	tags=80%, list=42%, signal=135%
256	GSE1460_CD4_THYMOCYTE_VS_N AIVE_CD4_TCELL_CORD_BLOOD_ UP	24	-	0.337	-1.88	0.0133	0.038	1	398	tags=75%, list=41%, signal=124%
257	GSE24634_TEFF_VS_TCONV_DAY1 0_IN_CULTURE_UP	39	-	0.275	-1.88	0.0064	0.038	1	334	tags=59%, list=34%, signal=86%
258	GSE29614_DAY3_VS_DAY7_TIV_F LU_VACCINE_PBMC_DN	34	-	0.284	-1.873	0.0116	0.039	1	300	tags=59%, list=31%, signal=82%
259	GSE11961_GERMINAL_CENTER_B CELL_DAY7_VS_GERMINAL_CEN TER_BCELL_DAY40_UP	17	-	0.397	-1.872	0.0064	0.04	1	228	tags=78%, list=23%, signal=75%
260	GSE7568_IL4_VS_IL4_AND_DEXA METHASONE_TREATED_MACROP HAGE_UP	18	-	-0.38	-1.856	0.0186	0.043	1	394	tags=78%, list=40%, signal=128%
261	GSE1925_3H_VS_24H_IFNG_STIM_ IFNG_PRIMED_MACROPHAGE_DN	22	-	0.339	-1.855	0.0166	0.043	1	240	tags=55%, list=25%, signal=71%
262	GSE3982_EOSINOPHIL_VS_MAC_D N	22	-	0.344	-1.844	0.0182	0.046	1	356	tags=68%, list=37%, signal=105%
263	GSE40274_CTRL_VS_FOXP3_AND_ HELIOS_TRANSDUCED_ACTIVAT ED_CD4_TCELL_DN	18	-	0.379	-1.842	0.0111	0.046	1	356	tags=72%, list=37%, signal=112%
264	GSE40225_WT_VS_RIP_B7X_DIAB ETIC_MOUSE_PANCREATIC_CD8_ TCELL_DN	19	-	-0.36	-1.832	0.0151	0.048	1	372	tags=74%, list=38%, signal=117%
265	GSE30962_ACUTE_VS_CHRONIC_L CMV_PRIMARY_INF_CD8_TCELL_ DN	33	-	0.284	-1.829	0.0203	0.049	1	172	tags=42%, list=18%, signal=50%
266	GSE17186_CD21LOW_VS_CD21HIG H_TRANSITIONAL_BCELL_UP	28	-	0.302	-1.829	0.0114	0.049	1	290	tags=57%, list=30%, signal=79%

There is 974 DSGs(differential expressed genes) between the low risk and high risk groups which stratified by the  $\gamma\delta$  T signature in LCI cohorts data.

All the data were ranked by the value of FDR q and the creteria was seted to  $FDR \leq 0.05$

**Table S3: The  $\gamma\delta$  T cell weight can be computed by the simple formula  $\sum_i w_i x_i + 1.217799$  where  $w_i$  and  $x_i$  are the weight and logged gene expression for the  $i$ -th gene.**

	Gene ID	Weights ( $w_i$ )		Gene ID	Weights ( $w_i$ )
1	KLRB1	-0.00383	29	LHCGR	0.001499
2	IL2RB	-0.012958	30	LAT	-0.010682
3	PVRIG	-0.011589	31	GPR18	-0.00283
4	VNN2	0.15576	32	MAGEA11	0.000507
5	KLRK1	-0.032773	33	CD3D	0.001048
6	CCR5	-0.014818	34	COLQ	-0.002815
7	CD2	-0.015428	35	GZMH	-0.017201
8	GZMA	-0.025291	36	KRT18P50	0.002928
9	KLRD1	-0.006226	37	ZNF442	-0.00681
10	LCK	-0.013979	38	CD244	-0.003936
11	CXCR6	-0.003706	39	CD8A	-0.035665
12	BFSP1	-0.001732	40	SIRPG	-0.007609
13	GZMK	-0.020927	41	DUSP2	-0.008552
14	LY9	-0.005345	42	SIT1	-0.008502
15	GNLY	-0.008928	43	CD3G	-0.007377
16	GZMM	-0.001279	44	MAP4K1	-0.007469
17	SCN9A	0.005706	45	CD8B	-0.007206
18	IL18RAP	-0.004272	46	PLEKHG3	-0.004568
19	PRF1	-0.021787	47	GYPE	7.3e-05
20	CDH12	0.008811	48	LAG3	-0.00631
21	CST7	-0.02182	49	GFI1	-0.003283
22	CD247	-0.010122	50	SKAP1	-0.022025
23	UBASH3A	-0.004547	51	CD300A	-0.001107
24	CD160	-0.007497	52	TCF7	-0.009199
25	KLRG1	-0.001971	53	BRSK2	-0.001827
26	GZMB	-0.018684	54	SH2D1A	-0.005153
27	GPR171	-0.010435	55	PTGDR	0.000706
28	CCL5	-0.035495			

**Table S4: Correlation between the  $\gamma\delta$  T cells and the chemokines or their receptors in LCI cohort.**

Chemokines			Chemokine Receptors		
	<i>r</i>	<i>P</i> value		<i>r</i>	<i>P</i> value
CCL5	0.6235	<0.0001	CCR5	0.5185	<0.0001
CCL4	0.4605	<0.0001	CXCR6	0.4511	<0.0001
CXCL9	0.4504	<0.0001	CCR7	0.3573	<0.0001
CXCL13	0.4184	<0.0001	CCR1	0.3157	<0.0001
CXCL11	0.3892	<0.0001	CCR2	0.3148	<0.0001
CXCL10	0.3699	<0.0001	CXCR3	0.2512	<0.0001
CCL8	0.3325	<0.0001	CX3CR1	0.2232	0.0005
CCL19	0.2941	<0.0001	CXCR4	0.1967	0.0022
CCL21	0.2897	<0.0001	CXCR5	0.1926	0.0027
CXCL12	0.289	<0.0001	CCR3	0.09146	0.1578
CCL3	0.2808	<0.0001	CCR8	0.07331	0.2579
CX3CL1	0.2672	<0.0001	IL8RA(CXCR1)	0.05011	0.4397
CCL18	0.2545	<0.0001	CCR4	0.02259	0.7277
CCL2	0.2416	0.0002	CCR6	-0.02763	0.6702
CXCL14	0.2401	0.0002	IL8RB(CXCR2)	-0.03258	0.6156
CCL14	0.2058	0.0013	XCR1	-0.03309	0.61
IL8(CXCL8)	0.1563	0.0154	CCR10	-0.0616	0.342
PPBP(CXCL7)	0.1387	0.0317	CCR9	-0.1187	0.0663
CCL1	0.1314	0.042	CXCR7	-0.1493	0.0207
CCL25	0.1259	0.0514			
CCL11	0.1194	0.0648			
PF4(CXCL4)	0.1003	0.1211			
CCL13	0.09973	0.1234			
CCL17	0.08401	0.1946			
CCL23	0.07508	0.2466			
CCL24	0.05246	0.4185			
CCL22	0.04932	0.447			
CCL7	0.04469	0.4907			
CCL16	-0.004409	0.9458			
CXCL2	-0.006015	0.9261			
CXCL3	-0.105	0.1047			
CXCL6	-0.1122	0.0827			
CCL15	-0.1138	0.0786			
CXCL1	-0.1474	0.0223			
CCL27	-0.1679	0.0091			
CXCL5	-0.2441	0.0001			
CCL20	-0.254	<0.0001			

**Table S5. Correlation between the  $\gamma\delta$  T cells and chemokines or their receptors in TCGA cohort.**

Chemokines			Chemokine Receptors		
	r	P value		r	P value
CCL5	0.8687	<0.0001	CXCR3	0.7946	<0.0001
CCL4	0.7357	<0.0001	CXCR6	0.7773	<0.0001
CXCL9	0.686	<0.0001	CCR5	0.7632	<0.0001
CCL3	0.5749	<0.0001	CCR7	0.6674	<0.0001
CXCL11	0.5656	<0.0001	CXCR5	0.6371	<0.0001
CCL22	0.5487	<0.0001	CCR2	0.5749	<0.0001
CCL19	0.5451	<0.0001	CXCR4	0.5574	<0.0001
CCL8	0.5269	<0.0001	CCR1	0.5396	<0.0001
CCL18	0.5239	<0.0001	CCR4	0.4382	<0.0001
CXCL10	0.4746	<0.0001	CCR8	0.4147	<0.0001
CXCL14	0.4632	<0.0001	XCR1	0.4112	<0.0001
CCL17	0.4355	<0.0001	CCR6	0.2787	<0.0001
CCL2	0.433	<0.0001	CX3CR1	0.2542	<0.0001
CCL21	0.4317	<0.0001	CCR9	0.2474	0.0001
CXCL12	0.4303	<0.0001	CXCR1	0.2057	0.0013
CCL13	0.4101	<0.0001	CXCR2	0.1842	0.004
CCL23	0.4069	<0.0001	CCR10	0.1702	0.008
CXCL13	0.3644	<0.0001	CCR3	0.1563	0.0149
CX3CL1	0.3386	<0.0001			
CCL24	0.2895	<0.0001			
CCL11	0.2797	<0.0001			
CXCL3	0.2174	0.0007			
CCL14	0.2164	0.0007			
CCL26	0.1962	0.0022			
CXCL4	0.1584	0.0136			
CCL7	0.139	0.0307			
CXCL2	0.1383	0.0316			
CXCL1	0.1317	0.0407			
CXCL5	0.1289	0.0452			
CXCL7	0.1277	0.0472			
CXCL17	0.127	0.0484			
CCL1	0.1156	0.0725			
CXCL16	0.1148	0.0747			
CXCL8	0.07347	0.2549			
CXCL6	0.06494	0.3144			
CCL27	0.03759	0.5606			
CCL20	0.0296	0.6468			
CCL28	-0.02245	0.7283			
CCL25	-0.04865	0.4513			
CCL16	-0.05194	0.4212			
CCL15	-0.12	0.0624			