

**Insights into the increasing virulence of the swine-origin pandemic H1N1/2009**

**influenza virus**

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## **Supplementary Methods and Results**

### **Supplementary Methods**

#### **Pathogenicity of the swine- and human-origin H1N1/2009 viruses**

5-week-old female specific pathogen free (SPF) BALB/c mice were infected with 50 $\mu$ L of Jia6/10 and LN/09 viruses with the titer of  $10^3$ TCID<sub>50</sub> and monitored daily for the signs of disease and mortality till to the 14th day. Body weights were measured daily and the mice lost more than 20% of body weight were euthanized. Six mice in each group were euthanized respectively on day 3 day 5 to collect lung tissues for subsequent virus titer determination, pathological analysis and quantification of cellular factors. The lung tissues were homogenated and the supernatants were collected for detection of the production of cytokines IL-1 $\beta$ , IL-6 and TNF $\alpha$  by enzyme-linked immunosorbent assay (ELISA) according to the manufacturer's protocol (Dakewe, Shenzhen, China). Each test had three replicates. The viral titer detection and histopathological analysis of the mouse lung tissues were proceed as previously described <sup>1</sup>. Appropriate lung tissues infected by Jia6/10 and LN/09 as well as another H5N1 influenza virus (A/duck/Hubei/hangmei01/2006 [HM/06]) were fixed in 10% neutral buffered formalin and routinely processed into paraffin. Sections of 4-mm thickness were cut for hematoxylin and eosin staining for histopathologic evaluation as previously described <sup>1</sup>.

#### **Animal experiments and lung tissues collection**

Stock viruses were prepared by propagating the A/Liaoning/1/2009 (H1N1) (LN/09) (GenBank accession numbers: JX403975-82) and A/swine/Nanchang/F9/2010 (H1N1) (Jia6/10) (GenBank accession numbers: JF275925-32) influenza viruses for one passage in MDCK cells for 40 to 48 h at 37 °C in a 5% CO<sub>2</sub> incubator. The infectious viral titers were determined using the Reed

and Muench method <sup>2</sup> and expressed as log<sub>10</sub> of the 50% tissue culture infective dose per 1.0 mL of fluid (TCID<sub>50</sub>/mL). Six-week-old female BALB/c mice were divided into 3 groups with 6 mice each group. One group of mice was infected with LN/09; the second group was infected with Jia6/10, and the final group was incubated with an equivalent PBS buffer. Each mouse was infected intranasally with 50 μL of a cellular virus stock fluid diluted in PBS to 10<sup>3</sup> TCID<sub>50</sub>. On day 3 and day 5 post-infection, three mice were euthanized and their lung tissues were harvested immediately after slaughter, cut into pieces, frozen and stored in liquid nitrogen. The animal studies were approved by Experimental Animal Center, Institute of Medicine, Hubei Province, China (No. 00018734).

### **RNA preparation and high-throughput sequencing**

The stored lung tissue was placed separately in liquid nitrogen, ground thoroughly to a fine powder and then lysed with TRIzol reagent (Invitrogen, USA). Total RNA was extracted using the RNeasy Mini Kit (QIAGEN, Germany) according to the manufacturer's protocol. The quality and concentration of the RNA were determined by an Agilent 2100 Bioanalyzer (260 nm/280 nm). The cDNA libraries were generated using the Illumina mRNA-SEQ kit and then clonally amplified on a cluster generation station using Illumina version 4 cluster generation reagents. The resulting libraries were then sequenced on a Genome Analyzer IIx using Illumina version 4.0 sequencing reagents, which generated single reads of 76 nucleotides. Image analysis, base calling and error estimation were performed using Illumina Analysis Pipeline software (version 2.6).

### **Bioinformatics analysis**

To systematically characterize the transcriptome of virus-infected tissue, we employed various publicly available tools for the mapping, assembly, and

quantification of transcripts, and we integrated these tools with additional informatics filtering steps to enrich the results for the most robust transcriptome construction. The details of the bioinformatics analysis are provided below.

### **Read alignment and assembly**

Due to the BALB/c mice genome sequence and related annotation are lacking at the moment. So we mapped the RNA-seq reads to the C57BL/6 (mm9) reference genome with a relatively relax criteria for read mapping which allowed maximum two mismatch. We retained transcripts corresponding to mRNAs, pseudogenes or long non-coding RNAs from the Ensembl (release 63, 2011-04-20), the RefSeq (release 37, 2011-03-04), the UCSC (2011-03-02) and the Vega (release 44, 2011-08-11) as the reference annotation information. And the RNA-seq reads from each sample were aligned to the mouse reference genome using TopHat software (version 1.3.2; allowing maximum two mismatches) as previously described <sup>3</sup>. Then, the aligned reads from TopHat mapping were subjected to the Cufflinks program (version 1.1.0; with default parameters) for ab initio transcript assembly <sup>4</sup>.

### **Discovery of splice junctions, NTRs and alternative spliced exons**

We prepared two databases of possible splice junctions in this study. The first database was based on the merged annotated transcripts and the second database was derived by identifying new junctions using TopHat based on RNA-seq data without relying on the genome annotations. And the identification of the splice junctions, the NTRs and the AS events had been performed as previous studies <sup>5,6</sup>.

### **Quantification of gene expression levels**

The gene expression levels were computed according to previous study and presented as RPKM value <sup>7</sup>. For hierarchical clustering analysis, the clustering software Cluster 3.0 <sup>8</sup> was used to perform the complete linkage hierarchical

clustering on both the genes and the samples, using uncentered Pearson's correlation as the distance measure. The clustering results were visualized using the Java Treeview program <sup>9</sup>.

### **Statistical analysis**

All of the statistical analyses were performed using the R language (<http://www.r-project.org/>). For the gene set analysis based on the GO term enrichment methods, GO::TermFinder <sup>10</sup> was used to detect the significantly enriched GO terms for the interested gene sets, which were compared to the genome-wide background with an adjusted P value (FDR) cutoff of 0.05.

### **Supplementary Results**

#### **Identification and description of the NTRs**

The RNA-seq has the greatest potential thus far to discover and annotate novel transcripts <sup>11</sup>. In the present study, 355 NTRs containing 622 multi-exon transcripts were identified based on the transcriptome data (Supplemental Table S1).

At first glance, the overall expression pattern of the NTRs demonstrated diversity across the Jia6/10- and LN/09-infected groups (Supplementary Fig. S2A). Notably, many of these regions were regulated by virus infection. As shown an example in Supplementary Fig. S2B, a novel transcript significantly increased in the virus-infected samples. The NTRs might closely relate to the virus infection and play a role in the interaction between the virus and the mouse lungs. Meanwhile, some NTRs also appeared in the non-influenza virus-infected mouse lungs, indicating that these NTRs might be associated with the normal biological development of mouse. Furthermore, we found that 77.6% of the NTRs only had two exons, and the NTRs had fewer exons per transcript (approximately 2.3) than the average protein-coding genes (approximately 7.7) (Supplementary Fig. S2C). We also observed that the novel

transcripts were (on average) approximately one-third the length of the protein-coding transcripts (median size of 453 bp for the NTRs versus 1,331 bp for the protein-coding transcripts) (Supplementary Fig. S2D). The structure and expression level features of the NTRs examined here were consistent with previous observation that NTRs had shorter exons and tissue-specific expression than the annotated protein-coding genes<sup>6</sup>.

### **Analysis of splice variants**

Alternative splicing (AS), through which a single gene could produce multiple mRNA and protein isoforms, is an important mechanism for the biodiversity of transcriptome and proteome<sup>12</sup>. It has been postulated as a principal contributor of the evolution of the phenotypic complexity in mammals<sup>5</sup>. To systemically investigate the splicing dynamics between the normal and the virus-infected tissues, a computational analysis was performed to categorize all of the splicing models into eight common types of AS events: 1) intron retention (IR), 2) cassette exons (CE), 3) mutually exclusive exons (MEE), 4) coordinate cassette exons (CCE), 5) alternative 5' splice sites (A5SS), 6) alternative 3' splice sites (A3SS), 7) alternative first exons (AFE) and 8) alternative last exons (ALE)<sup>13</sup> (Supplementary Fig. S3A). A total of 39,736 splicing events comprised of these eight AS events were identified with 11,250 multi-exonic genes containing at least one AS event. The predominated AS events observed in the annotated transcriptome were AFE (27.9%), followed by CE (17.7%), A3'SS (17.0%) and ALE (12.2%). Reads supporting both alternative isoforms were observed for 57.3% of these events (Supplementary Fig. S3A).

To assess the extent of the splicing changes upon influenza virus infection, a total of 337 splicing events from 261 genes that changed significantly in the virus-infected groups (false discovery rate (FDR) < 0.05; Supplementary Table S2)

were identified. Notably, although several events were constitutively identified in both the Jia6/10- and LN/09-infected mouse lungs, a higher frequency of virus-specific events was observed in the Jia6/10-infected tissue than in the LN/09-infected tissue and/or in the day 5 groups compared to the day 3 groups (Supplementary Fig. S3A), which suggested that Jia6/10 exerted a greater influence on the transcriptome or proteome complexity than the LN/09 virus, and the complexity was increasing along the process of virus infection.

As the two examples showed here, the splicing events involved the *Tnfrsf19* and the *Gbp5* genes were significantly activated by the virus infection. The *Tnfrsf19* gene splicing event involved an AFE model (Supplementary Fig. S3B), where the exon was preferentially included in the virus-infected cells. While, after the virus infection, an exon of the *Gbp5* gene was activated and the gene displayed a CE model for the second isoform (Supplementary Fig. S3C).

Collectively, most of the NTRs and AS events were regulated by virus infection and displayed distinct changing models and/or magnitude between Jia6/10 and LN/09 infected mouse lung tissues. The identified NTRs and AS events were important contributor to the transcriptome complexity and might closely relate to the pathogenicity of the viruses.

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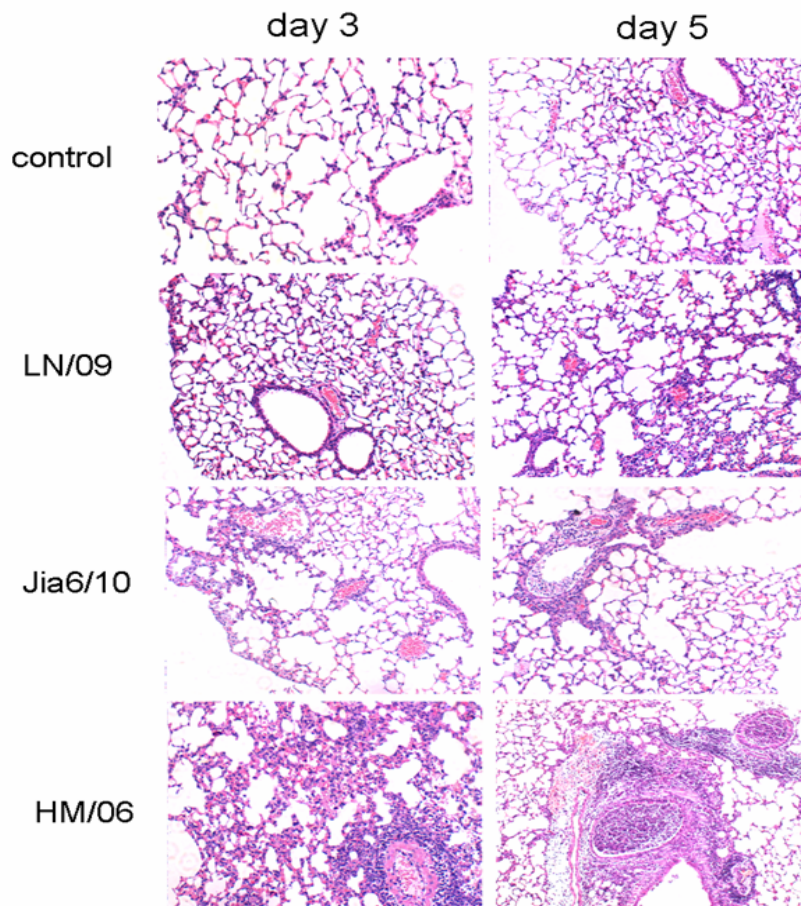


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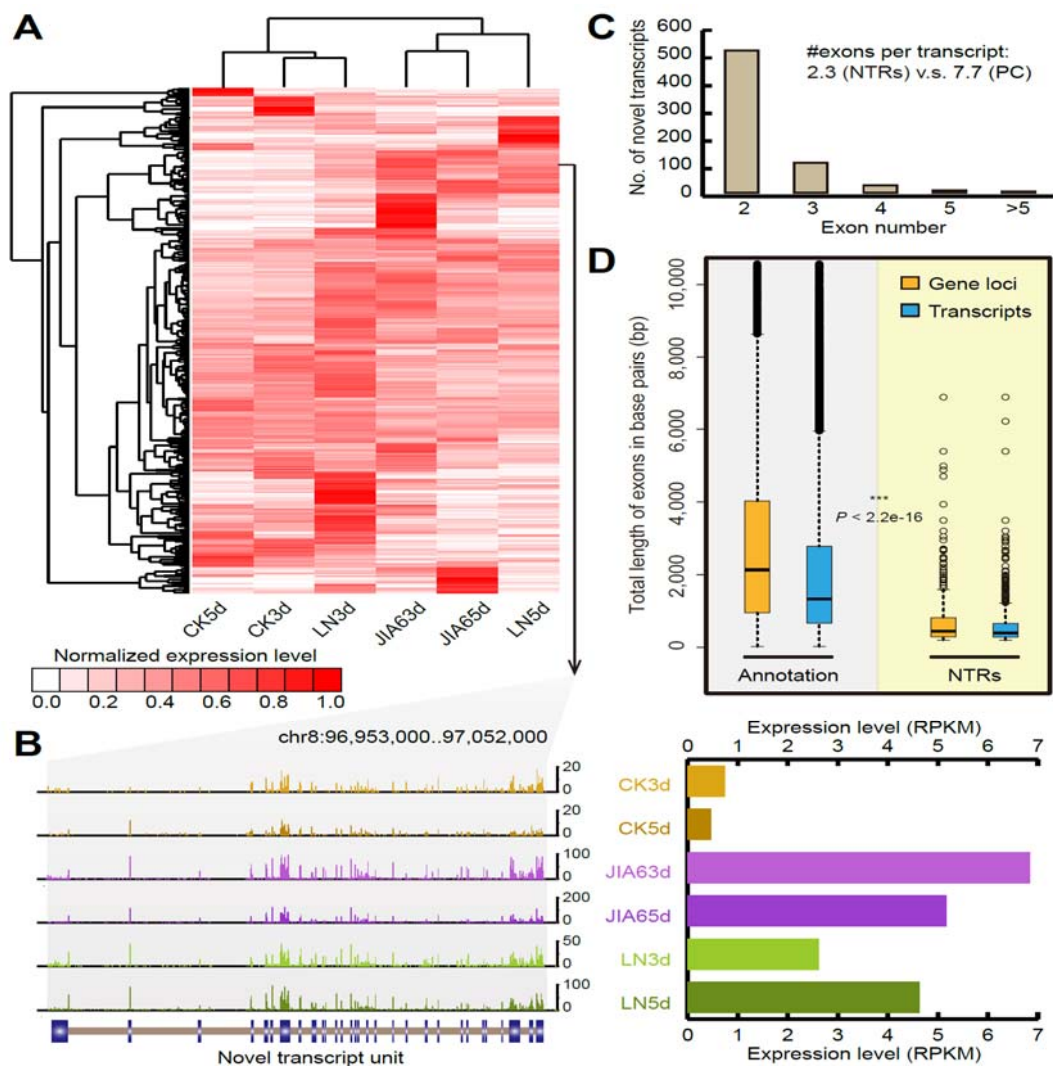
**The legends of the supplementary figures and tables:**

**Supplementary Fig.S1. Pathology analysis of the mouse lung tissues infected by Jia6/10 and LN/09 on day 3 and day5. HE staining. HM/06 is a highly pathogenic H5N1 avian influenza virus as a control.**



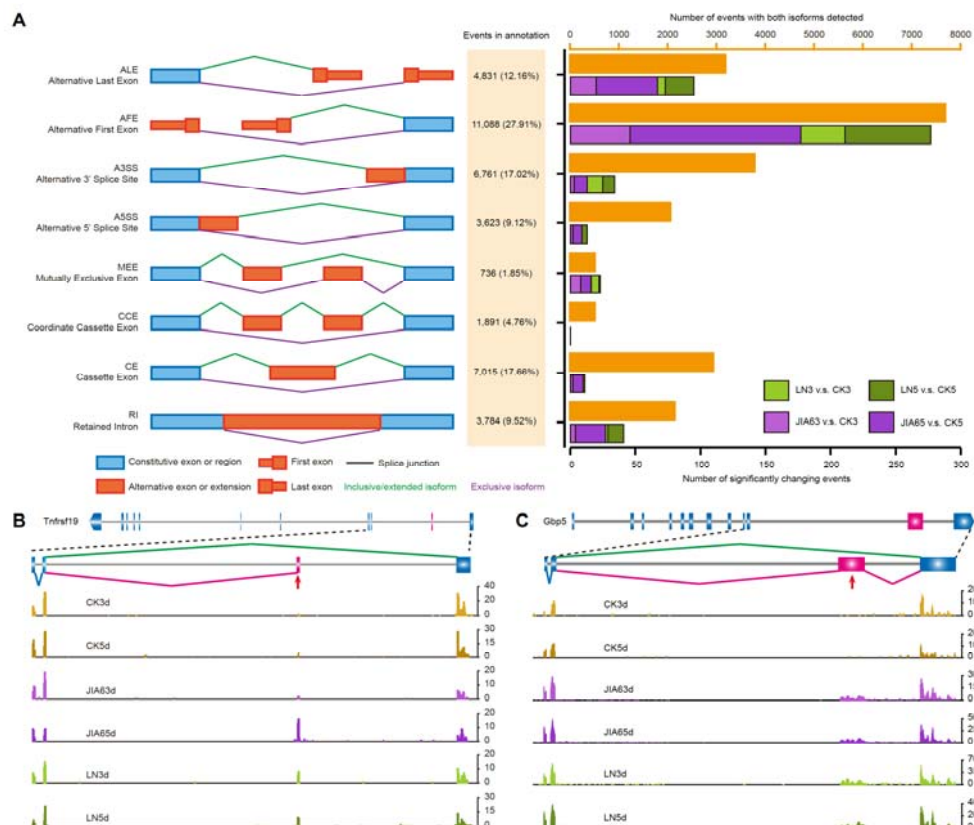
**Supplementary Fig. S2. Discovery of the NTRs after the Jia6/10 and LN/09 infection.**

**A.** Heat map showing the cluster analysis of expression levels (calculated as RPKM) of 355 NTRs. **B.** An example of the NTRs. This NTR is up-regulated after virus infection. The expression value of the NTR is shown on the right. #: number of; PC: protein-coding genes. **C.** The distribution of exon numbers of the NTRs identified in this study. The majority have two exons. **D.** The length distribution of annotated genes and the identified NTRs. The NTRs (median size 453 bp) are much smaller than annotated mice transcripts (median size 1,331 bp).



**Supplementary Fig. S3. AS dynamics affected by the Jia6/10 and LN/09 infection.**

**A.** Classification and analysis of the eight common types of AS events. Diagram represents the eight different AS event types (left). The number of events identified from the annotated transcriptome is listed in the middle (color background). The number of events with both isoforms detected by RNA-seq data (orange) and significantly changed after virus infection (colored stacked bar) is shown in the right bar chart. The significance is determined by Fisher's exact test (FDR > 5%). **B.** AS event of *Tnfrsf19* gene regulated by virus infection. Red arrow indicates the alternative first exon. **C.** AS event of *Gbp5* gene regulated by virus infection. Red arrow indicates the exon corresponding for alternative 5' or 3' splice sites. In both **B** and **C**, the RNA-seq data from each sample are indicated.



**Supplementary Table S1:** The expression level of NTRs after Jia6/10 and LN/09 infection.

**Supplementary Table S2:** The AS events significantly changed after the Jia6/10 and LN/09 viruses infection.

**Supplementary Table S3:** The differentially expressed genes after the Jia6/10 and LN/09 viruses infection.

**Supplementary Table S4:** The GO analysis of differentially expressed genes after Jia6/10 and LN/09 viruses infection.

**Supplementary Table S5:** The mutation sites of the Jia6/10 and LN/09 viruses genomes after they infected lung tissues.

**The legends of the Supplementary Tables for reviewing only:**

**Data not show:**

**Table S6:** Comparison of the expression levels of most chemokines and the oxidation factors of the lung tissues infected by the Jia6/10, LN/09 and HM/06.

**Table S1. Expression level of NTRs**

ID	Location	Length	CK3d	CK5d	JIA63d	JIA65d	LN3d	LN5d
NTR.g0001	chr1:7696221-7698369	2149	2.207812364	16.57222	60.83755	21.8505	20.18989	8.796454
NTR.g0002	chr1:25072124-25075035	2912	32.79791848	5.755018	16.87682	16.28425	12.91559	9.780511
NTR.g0004	chr1:46695465-46696458	994	3.97063929	5.747973	1.400075	3.536733	3.682192	2.711996
NTR.g0005	chr1:46823478-46827067	3590	4.277736665	3.589874	0.874411	0.331328	1.724774	1.429116
NTR.g0006	chr1:46832025-46834725	2701	6.872907416	1.7455	0.850328	1.611012	2.096587	2.470675
NTR.g0007	chr1:46837513-46841480	3968	3.108665775	1.153888	1.405304	0.63899	1.385979	1.633275
NTR.g0024	chr1:184185449-184186183	735	3.104317991	0.998638	2.432453	1.843388	2.099128	3.092087
NTR.g0026	chr1:196921576-196922401	826	3.076351162	2.041135	3.163833	1.198825	5.34913	2.134018
NTR.g0027	chr1:4132745-4138030	5286	5.667634506	4.102288	1.665373	1.262071	2.874325	3.629124
NTR.g0028	chr1:4160282-4187722	27441	3.283413259	2.904692	2.572787	3.655757	2.537408	4.905715
NTR.g0030	chr1:16700141-16704350	4210	2.328238493	3.994551	4.256793	1.382541	3.29863	9.938851
NTR.g0039	chr1:84942001-84956263	14263	1.540699249	1.351725	13.41691	7.048804	7.793318	8.310912
NTR.g0053	chr1:166157113-166158850	1738	0.615639986	0.594141	2.411988	1.279515	1.427292	2.452857
NTR.g0054	chr1:172871694-172875672	3979	0	0.051428	16.53522	10.44241	4.787338	5.414047
NTR.g0055	chr1:172876375-172880283	3909	0.042898867	0.124202	12.65579	8.177139	3.729607	4.39507
NTR.g0056	chr1:173411409-173412844	1436	0	0	5.10573	5.719804	2.846163	3.708745
NTR.g0057	chr1:173413764-173417635	3872	0.674851737	0	10.57588	6.812521	2.346851	2.400689
NTR.g0060	chr10:8264611-8269490	4880	11.34270035	7.777852	16.25534	16.75002	21.22196	21.74655
NTR.g0061	chr10:22009734-22013438	3705	4.42951034	0.777242	1.419887	1.076034	2.333936	18.22123
NTR.g0066	chr10:85291952-85292527	576	4.226175482	6.525752	3.97381	3.513388	4.572359	2.886531
NTR.g0068	chr10:116758688-116766439	7752	9.007410863	2.984119	2.528219	1.676467	2.960975	2.639926
NTR.g0072	chr10:126507537-126508157	621	7.524904552	3.255438	5.489656	3.466858	6.9181	5.316832
NTR.g0073	chr10:8264612-8270302	5691	10.82901625	8.709051	19.5162	17.84442	25.31507	23.11361
NTR.g0075	chr10:19863576-19866523	2948	2.537499844	1.049524	0.852133	0.645773	0.630311	0.61898
NTR.g0076	chr10:25027613-25028652	1040	0.316180536	0.610279	0	0	4.398173	0
NTR.g0080	chr10:59431856-59447557	15702	6.294009267	6.315259	4.462107	3.159053	10.07539	3.369168
NTR.g0081	chr10:116462498-116464401	1904	1.885655004	9.926219	0.805933	0.458071	0.993563	1.902618
NTR.g0084	chr10:127987174-127992591	5418	6.628008132	5.628968	4.985774	5.431411	12.60036	4.979714
NTR.g0086	chr11:5454921-5463892	8972	13.73982164	12.96752	12.46812	14.93799	26.93556	15.8708
NTR.g0088	chr11:57906126-57906987	862	2.414026201	1.694347	5.674682	8.991847	2.035145	2.061013
NTR.g0089	chr11:59272427-59273602	1176	2.653950614	1.494076	0.51989	2.757918	3.332813	1.699389
NTR.g0091	chr11:68773016-68775447	2432	1.575597638	3.317622	4.377192	0.765501	3.15473	1.712062
NTR.g0092	chr11:72418722-72419859	1138	0.762220935	10.29845	0	0	1.767123	0
NTR.g0093	chr11:82812336-82815393	3058	1.475746809	0.897873	9.690735	9.401382	6.024556	6.874901
NTR.g0094	chr11:82837668-82840495	2828	1.404668774	1.287836	9.616996	8.038756	5.414041	5.666494
NTR.g0097	chr11:84684403-84684815	413	26.97415199	18.59443	17.41991	9.768996	28.1758	12.14748
NTR.g0099	chr11:86625171-86628697	3527	17.54629826	13.60667	44.25101	40.77994	35.47075	28.57194
NTR.g0100	chr11:86629161-86629890	730	44.326079	13.94252	45.15242	56.44489	33.87439	28.03266
NTR.g0101	chr11:87784620-87786115	1496	0.723463939	0.465467	0.566885	29.64262	0.279545	0.411779
NTR.g0102	chr11:88756882-88757892	1011	2.360426122	1.138999	3.699123	3.504136	3.192223	8.061003
NTR.g0103	chr11:94523029-94524478	1450	2.30207851	0.740563	1.127401	0.341752	5.11473	1.146504

NTR.g0110	chr11:117837520-117842071	4552	0.83043526	1.282298	2.342538	7.100989	3.658014	5.388378
NTR.g0112	chr11:5453513-5457585	4073	19.20796757	22.6566	23.83044	25.12028	55.8411	24.33835
NTR.g0114	chr11:34602374-34608296	5923	0	0	0.384439	0.29134	0	4.46804
NTR.g0115	chr11:59449332-59454575	5244	4.984781747	4.104242	9.915054	11.17775	7.717905	10.02949
NTR.g0116	chr11:70598413-70599751	1339	0.350590327	0.338348	2.88448	1.71753	1.016005	1.795932
NTR.g0117	chr11:80221416-80227352	5937	4.832193099	1.165863	1.893183	0	1.400362	1.718984
NTR.g0118	chr11:86623471-86646161	22691	15.64464091	12.51611	39.8469	37.43107	32.03758	26.06872
NTR.g0120	chr11:89983044-89991713	8670	4.878213985	4.184768	0	0.241396	4.712329	0.462761
NTR.g0122	chr11:97146878-97148004	1127	1.001980572	2.320778	0.471074	2.141965	1.626085	3.079644
NTR.g0124	chr11:103514934-103515562	629	5.021690867	8.238762	0.295114	0.670939	2.6195	0
NTR.g0128	chr12:10489263-10495508	6246	1.095551512	1.057294	9.112696	11.25959	4.689069	4.388923
NTR.g0129	chr12:17879338-17882237	2900	7.880191823	1.640296	24.78956	20.36902	34.03112	16.4898
NTR.g0130	chr12:19123230-19126117	2888	16.37208803	4.51439	6.414346	2.083281	24.85269	0.998423
NTR.g0131	chr12:21549062-21560519	11458	10.59583856	7.204559	11.60476	7.185703	9.351547	10.99956
NTR.g0132	chr12:21995464-21996439	976	3.711684554	30.34224	13.6009	45.11822	3.290194	5.032973
NTR.g0133	chr12:22975914-22978327	2414	5.768158429	6.958414	44.06767	21.06507	18.72195	14.2815
NTR.g0137	chr12:57354186-57362486	8301	4.297084467	4.147028	7.744262	6.634341	3.984922	3.913284
NTR.g0140	chr12:60325417-60327359	1943	34.73336183	36.34748	90.50158	55.91158	73.24899	45.01715
NTR.g0143	chr12:114574673-114576753	2081	13.22614355	22.27947	11.58841	18.84929	18.95551	52.55926
NTR.g0147	chr12:19125754-19126544	791	19.45613252	8.813559	12.60067	9.902851	29.91781	68.47791
NTR.g0148	chr12:22977301-22977714	414	1.492460572	9.794332	40.69682	10.10318	7.958233	1.274212
NTR.g0150	chr12:25872393-25873906	1514	0.710222502	0.205626	2.337341	3.226312	1.564242	1.758454
NTR.g0153	chr12:57365993-57370455	4463	3.169631612	3.466806	2.856176	2.258607	3.674217	1.443265
NTR.g0156	chr12:70462165-70462470	306	4698.723249	9062.306	3743.686	3938.43	6160.591	4411.006
NTR.g0159	chr12:94121940-94130345	8406	3.316483609	2.607953	5.991448	5.087552	5.695476	6.239787
NTR.g0163	chr12:114574673-114576753	2081	12.72433865	21.43418	11.14874	18.13414	18.23633	50.56514
NTR.g0166	chr13:13435727-13440419	4693	5.871084676	6.738021	6.154604	10.60034	8.277232	11.3798
NTR.g0167	chr13:18073288-18073760	473	2.918589564	1.173613	2.001057	1.083187	3.665145	1.868844
NTR.g0177	chr13:51729997-51731048	1052	10.92884896	45.5719	42.65607	51.61152	54.02104	21.47816
NTR.g0178	chr13:51732535-51733999	1465	7.843709453	7.217719	34.94703	35.09527	13.74429	16.66386
NTR.g0180	chr13:55286340-55290436	4097	10.55282863	11.87	28.82706	26.38378	32.56448	19.57267
NTR.g0185	chr13:62393414-62394182	769	14.089987	26.39603	176.0798	44.84869	35.54834	43.51866
NTR.g0189	chr13:68232082-68233263	1182	13.58520299	5.66516	31.54065	28.2348	23.33019	30.78635
NTR.g0190	chr13:68352076-68355446	3371	4.917144909	2.572826	5.222348	6.754399	4.1891	3.793454
NTR.g0191	chr13:68373231-68375238	2008	12.0629748	10.07457	26.44797	15.08397	22.05063	14.85426
NTR.g0192	chr13:68435539-68438600	3062	3.394383489	4.258605	20.14753	9.372693	10.23034	6.520518
NTR.g0193	chr13:74584937-74585985	1049	3.088017605	3.268587	2.575789	1.330917	1.616598	1.275698
NTR.g0194	chr13:74644886-74645792	907	4.725207274	5.168227	5.553803	2.244716	5.112268	9.682128
NTR.g0195	chr13:74742945-74745280	2336	11.9020826	7.521587	8.095267	5.219997	8.684292	5.622402
NTR.g0197	chr13:87770308-87772329	2022	11.62468014	11.91991	168.2274	21.03227	26.52941	9.924753
NTR.g0205	chr13:51728130-51733990	5861	12.23888402	28.40616	43.15515	46.75904	38.92696	20.12107
NTR.g0206	chr13:55280843-55290427	9585	9.632777412	10.91316	27.32035	26.17558	31.15223	19.01086
NTR.g0209	chr13:62742260-62744270	2011	2.860681041	0.145304	1.061785	0.268218	2.61796	0.128545

NTR.g0213	chr13:68374124-68376826	2703	8.021224338	10.5058	26.71209	20.41336	21.25292	11.08764
NTR.g0214	chr13:68582537-68588821	6285	0.424720123	0	1.497593	11.34922	0.492333	1.450446
NTR.g0216	chr13:74648591-74649037	447	6.246493518	6.69818	7.341856	2.472837	4.827264	3.555361
NTR.g0217	chr13:74693261-74693867	607	8.275541582	4.623795	5.375288	2.521726	7.825832	2.603032
NTR.g0218	chr13:74718307-74718792	486	8.357779206	5.473303	7.016693	2.126986	4.844142	3.567793
NTR.g0219	chr13:74746618-74747942	1325	6.374938731	6.687307	8.795925	2.715705	4.176837	3.31295
NTR.g0220	chr14:26199122-26199601	480	0.342846364	2.646992	0.402967	0.916142	0.794851	2.927105
NTR.g0221	chr14:32928487-32928773	287	12.2559089	15.90652	254.3238	79.05123	34.78258	20.92735
NTR.g0222	chr14:32929002-32934078	5077	12.34824244	11.45458	46.40015	28.46566	35.72092	21.46265
NTR.g0241	chr14:32930521-32934059	3539	16.38284311	15.91177	63.30382	37.25062	47.75025	29.31484
NTR.g0244	chr14:45167258-45168354	1097	0.529145112	0.340445	0.829245	14.76805	13.08547	1.807064
NTR.g0245	chr14:51085706-51086805	1100	1413.594191	1274.107	962.4036	600.4641	1563.365	840.0584
NTR.g0246	chr14:52974571-52989040	14470	19.17976203	10.16235	27.84731	12.72912	15.69392	10.5956
NTR.g0249	chr14:57284518-57286942	2425	3.121007872	2.126132	2.805168	1.635263	2.340963	0.783709
NTR.g0251	chr14:65729608-65768726	39119	4.353080469	5.368032	3.695193	6.031482	3.364042	3.510038
NTR.g0256	chr15:63900439-63901152	714	0.77962324	0.752398	3.894425	6.597056	0.903734	6.489752
NTR.g0260	chr15:82193642-82199998	6357	13.54025044	20.5445	35.65896	22.83127	15.86364	8.963792
NTR.g0261	chr15:83100387-83101397	1011	0.740191428	0.952458	28.12964	10.54887	0.858025	0.21065
NTR.g0262	chr15:85525308-85531506	6199	3.752472296	2.414289	2.572787	4.456542	5.799789	2.936754
NTR.g0263	chr15:89049431-89053162	3732	4.73331654	4.404883	2.185596	3.011475	4.311081	3.608164
NTR.g0265	chr15:101084621-101089736	5116	3.606093528	3.267095	7.957897	3.605333	7.336608	3.707077
NTR.g0266	chr15:25766620-25772743	6124	24.89921722	17.16409	44.02115	25.71933	33.71394	15.54163
NTR.g0267	chr15:38380580-38384985	4406	3.219212441	1.841064	3.223171	2.442618	4.422744	1.934097
NTR.g0269	chr15:63901581-63904484	2904	0.323775265	0.104156	3.932364	5.383345	0.875743	3.04071
NTR.g0271	chr15:74761794-74766207	4414	0.862310553	0.656999	4.160776	1.697857	6.313168	2.324877
NTR.g0272	chr15:75701432-75702720	1289	0.351311707	0	2.890415	0.625842	12.62439	0.299938
NTR.g0273	chr15:75716114-75716425	312	3.679687273	0.710238	0	0.327758	5.545111	1.570795
NTR.g0275	chr15:77720760-77732564	11805	9.714374402	24.43219	2.767964	3.146473	19.10931	14.82831
NTR.g0278	chr15:82191608-82197167	5560	27.32446565	36.35666	15.77294	16.12964	17.80511	16.42671
NTR.g0279	chr15:86026659-86043590	16932	1.835886984	1.771777	18.07176	2.044079	2.660186	0.391854
NTR.g0281	chr15:98438449-98454532	16084	4.753712004	3.440782	3.957675	1.764263	6.199282	3.213024
NTR.g0284	chr15:101087611-101090056	2446	3.642399776	1.757603	15.51905	2.636045	4.750027	0.388719
NTR.g0285	chr15:101227444-101229145	1702	2.649374837	1.136381	1.383982	1.704339	2.047426	1.633627
NTR.g0292	chr16:4430094-4437305	7212	1.696067776	2.728067	0	1.762511	0.983035	0.724022
NTR.g0294	chr16:10808296-10818909	10614	0	0	3.730063	2.261405	1.839385	3.251371
NTR.g0302	chr16:33300472-33303097	2626	0.404591207	0	0.951078	0	1.875998	4.145113
NTR.g0308	chr16:98154319-98165238	10920	0.845235096	1.223579	10.43125	2.258607	1.469687	0
NTR.g0309	chr16:98231960-98232706	747	2.871731475	4.787048	6.44377	1.627762	1.81576	3.343344
NTR.g0311	chr17:4880581-4881262	682	53.42314682	39.53909	84.0045	54.6586	70.08717	39.90949
NTR.g0315	chr17:19036604-19038275	1672	2.505177611	3.347578	5.209459	2.574709	2.010452	1.15168
NTR.g0317	chr17:24916732-24918194	1463	1.459294782	0.93889	6.289036	4.549387	2.255474	3.530038
NTR.g0321	chr17:32542618-32544819	2202	1.902259433	0.786785	2.600867	2.524285	3.690146	3.877914
NTR.g0324	chr17:43027610-43045159	17550	10.83696501	13.87356	21.31548	14.85336	20.1507	13.25523

NTR.g0325	chr17:44242861-44243159	299	2.958322838	2.039298	4.967263	2.258607	6.368642	2.164898
NTR.g0326	chr17:46987899-46990689	2791	9.140122564	7.703625	8.73756	7.164345	12.14913	7.439359
NTR.g0327	chr17:52288540-52297884	9345	0.659218106	0.636198	6.585938	2.055128	1.146242	1.969862
NTR.g0335	chr17:4880894-4899893	19000	28.54195984	21.58953	25.08468	30.00364	34.87407	32.0518
NTR.g0342	chr17:15966584-15968042	1459	3.99666408	7.251345	1.691102	2.420741	2.038479	2.183817
NTR.g0343	chr17:17177141-17178277	1137	2.500339804	1.263966	5.037927	1.484737	2.76036	1.931399
NTR.g0346	chr17:21612179-21613132	954	9.138690691	9.680008	28.55592	12.90492	11.11027	10.8471
NTR.g0347	chr17:21613652-21614333	682	1.50208935	4.832118	11.76994	19.17718	6.674647	4.488513
NTR.g0351	chr17:22852692-22853907	1216	0.999634013	2.508288	2.584838	1.068474	3.244554	1.024144
NTR.g0354	chr17:25308948-25316671	7724	9.033729603	6.5387	2.919909	3.620941	4.450533	7.519871
NTR.g0359	chr17:35851847-35852186	340	2.266426852	1.458188	2.663859	5.719804	2.189356	0.967499
NTR.g0361	chr17:43028892-43031073	2182	30.14504636	44.00526	28.88087	22.11245	35.53124	31.79253
NTR.g0363	chr17:56691514-56694199	2686	5.371302257	4.754312	2.951138	2.123225	6.521119	2.930592
NTR.g0364	chr17:84435107-84437408	2302	0	0	2.447285	5.93481	0.965453	1.066608
NTR.g0371	chr18:61256374-61260655	4282	14.19926383	18.21552	6.105803	3.239016	11.24077	3.991668
NTR.g0373	chr18:90005355-90008388	3034	8.958448523	7.684991	29.38589	17.41926	17.57912	23.89505
NTR.g0378	chr18:60426051-60427812	1762	0	0.633751	4.888296	7.019054	2.791149	6.727837
NTR.g0380	chr18:90005386-90009954	4569	12.52443289	11.90932	36.36872	24.69036	26.10081	26.92889
NTR.g0381	chr19:3083592-3086107	2516	7.667378	5.111084	26.29246	10.34986	14.66058	23.55262
NTR.g0382	chr19:3138903-3142962	4060	1.869388571	2.405478	1.464799	1.665104	0.361164	11.17214
NTR.g0384	chr19:4059955-4061987	2033	9.428786733	2.459332	11.08219	11.5762	20.08718	14.79455
NTR.g0385	chr19:4062074-4065918	3845	12.60740478	8.889563	28.48769	20.6748	29.62536	22.2785
NTR.g0387	chr19:4178930-4179505	576	0.694054835	0	6.933975	1.236419	2.413632	2.666521
NTR.g0388	chr19:5512483-5517691	5209	3.564102663	4.58619	3.590649	5.744554	5.508647	3.62251
NTR.g0389	chr19:5574101-5576184	2084	0.733828751	11.80338	2.012524	1.307274	0.85065	1.044196
NTR.g0398	chr19:60822262-60829452	7191	2.042314468	1.182597	2.400447	2.182959	6.628826	3.138584
NTR.g0399	chr19:3083335-3096154	12820	5.625274211	3.51869	17.44755	6.402371	10.02268	14.63034
NTR.g0400	chr19:3225174-3228264	3091	2.210886455	1.927196	8.801641	14.42024	1.818794	1.400462
NTR.g0401	chr19:4061028-4072760	11733	17.04811269	9.216033	38.64396	25.80328	42.1244	28.45357
NTR.g0406	chr19:10250339-10253830	3492	14.93141543	15.03652	16.7867	12.43235	13.92197	9.699512
NTR.g0408	chr19:12614322-12615428	1107	1.480382857	0.238115	20.00974	10.54887	6.006176	4.42365
NTR.g0413	chr2:11451178-11452421	1244	1.061423114	0.951189	2.227769	1.080494	2.021363	1.294581
NTR.g0414	chr2:16679493-16685046	5554	6.673367952	6.075783	1.109941	0.448612	4.816584	1.719998
NTR.g0415	chr2:25114445-25115176	732	1.600663964	3.346997	1.254234	0.712873	1.546233	1.138827
NTR.g0416	chr2:30018137-30020317	2181	9.485416083	6.131573	3.576012	1.673831	11.51409	1.833583
NTR.g0417	chr2:30304940-30305993	1054	3.573575361	2.81012	2.80015	3.654624	5.523288	110.4009
NTR.g0418	chr2:51800470-51802313	1844	1.033877532	1.282852	2.256753	1.710237	3.595393	3.27856
NTR.g0420	chr2:75471541-75494070	22530	23.35497226	20.22767	63.1125	26.55168	56.76832	26.52942
NTR.g0421	chr2:81830528-81832032	1505	1.513630226	1.168619	4.981354	2.426801	15.79131	3.101485
NTR.g0426	chr2:164700383-164701799	1417	5.987787707	5.283374	2.412955	2.895301	8.329206	1.606681
NTR.g0427	chr2:164702686-164703322	637	5.507660951	6.053571	7.01292	5.042062	9.044631	5.747197
NTR.g0430	chr2:167596575-167598784	2210	4.48365256	5.538664	5.26989	3.833937	8.731668	2.603032
NTR.g0432	chr2:181595681-181598933	3253	4.923105525	3.133762	4.924599	1.866006	2.307017	2.861739



NTR.g0433	chr2:17844739-17861975	17237	8.536874474	4.868359	4.104765	5.184529	7.646824	17.88993
NTR.g0437	chr2:34530150-34530479	330	3.384663889	1.814705	0.884041	2.009861	6.975077	0.321079
NTR.g0439	chr2:75473458-75494295	20838	29.90029667	24.92123	80.67032	33.3667	73.55453	34.23052
NTR.g0441	chr2:84582092-84583982	1891	5.741614691	2.989285	5.949286	5.316053	7.093514	4.514994
NTR.g0443	chr2:90079637-90081579	1943	7.132072346	5.631559	7.874683	8.855262	7.014808	4.612969
NTR.g0445	chr2:144028256-144045999	17744	0	0	7.905474	0.69127	0	1.104317
NTR.g0449	chr2:164359729-164366747	7019	4.595121668	5.47403	5.316517	3.709256	6.32538	2.942368
NTR.g0450	chr2:167396799-167398244	1446	3.921779906	3.108967	3.704054	1.372334	5.926169	1.853513
NTR.g0451	chr2:167399696-167403497	3802	6.243761915	3.918073	5.495757	3.29198	8.892994	4.470147
NTR.g0452	chr2:167596672-167597986	1315	3.968675572	2.852193	5.359337	3.083709	6.460225	2.523216
NTR.g0453	chr2:167848007-167875937	27931	2.307263371	1.484462	1.807905	0	4.903369	1.313242
NTR.g0454	chr2:167887361-167889273	1913	5.899555561	3.253672	3.254993	3.11023	3.349808	2.672789
NTR.g0455	chr2:174436860-174439680	2821	1.52990582	1.771777	1.438548	4.088159	1.773457	3.396071
NTR.g0456	chr2:175785039-175787855	2817	5.718480509	5.518788	2.160403	2.546786	7.575801	1.918024
NTR.g0465	chr3:87834783-87837047	2265	13.36319257	7.825572	4.574713	1.444524	12.10667	3.655322
NTR.g0467	chr3:91917112-91922658	5547	8.90804293	3.940277	6.543828	0	9.035378	2.535127
NTR.g0468	chr3:95786350-95787343	994	16.29259704	14.96978	23.21562	17.29532	21.21472	16.38719
NTR.g0479	chr3:102809851-102811419	1569	5.863237963	3.545987	2.940328	2.854972	5.618546	2.803266
NTR.g0483	chr3:107122111-107123256	1146	4.7025156	0.3491	0	0.644405	0.419317	0
NTR.g0486	chr3:6138572-6138967	396	10.73820689	12.43587	6.941671	8.608274	12.13647	9.626308
NTR.g0487	chr3:47285957-47289093	3137	9.552808026	8.926545	10.87151	5.942716	16.34667	6.213988
NTR.g0488	chr3:57430865-57431207	343	5.979133873	8.01436	4.294653	3.25462	6.160866	4.253983
NTR.g0489	chr3:87839964-87843464	3501	1.497697276	1.156317	1.408263	0.266806	8.333381	2.301629
NTR.g0490	chr3:88468690-88470128	1439	2.683747964	2.651697	3.15436	1.13832	6.073825	0.872873
NTR.g0491	chr3:89667388-89669162	1775	2.032589161	1.634675	0.597254	2.263088	3.730594	1.446129
NTR.g0493	chr3:115396681-115397363	683	0.847332454	4.702023	0.995918	0.566053	4.420001	2.531982
NTR.g0497	chr3:143889413-143895035	5623	3.962959137	4.461999	3.881575	1.617867	4.402427	4.511251
NTR.g0498	chr3:145317134-145319902	2769	5.044516735	0	0.456085	0	0.449813	0
NTR.g0500	chr4:8320420-8323731	3312	4.028637392	5.230225	12.45778	21.27404	6.949361	16.66526
NTR.g0503	chr4:55434205-55435621	1417	70.57713056	53.42959	190.7429	118.5768	48.49966	124.1208
NTR.g0505	chr4:115329070-115330220	1151	1.397197132	5.932987	0.328441	1.86677	2.429433	0.954303
NTR.g0507	chr4:126720745-126722124	1380	2.179627525	2.454099	0.853946	2.103227	3.368814	0.930446
NTR.g0508	chr4:128594579-128598389	3811	1.267068568	2.445644	3.536986	1.128605	3.121153	1.757892
NTR.g0509	chr4:129073404-129075828	2425	2.174999866	1.443095	0.6391	0.726494	3.624291	0.92847
NTR.g0510	chr4:134850618-134851401	784	2.478047743	1.91321	0.582518	1.213987	1.579895	0.317351
NTR.g0511	chr4:138520662-138522356	1695	8.310231789	3.64547	4.143781	2.467367	6.714026	1.719998
NTR.g0515	chr4:144534793-144550399	15607	6.335961524	5.79288	6.663117	0.891091	7.731164	1.423533
NTR.g0516	chr4:148808421-148808995	575	16.8387891	31.36776	16.56969	19.88195	15.8879	25.74375
NTR.g0517	chr4:148809329-148812118	2790	22.29780646	19.13668	33.97663	27.02532	35.63259	24.47627
NTR.g0518	chr4:148813024-148813305	282	3.641320866	1.561851	0.475539	4.324536	3.751996	10.70821
NTR.g0520	chr4:154213452-154229919	16468	1.358139121	2.246935	1.596298	2.592264	5.622665	3.97554
NTR.g0523	chr4:4896529-4904423	7895	4.136811419	1.451764	6.18829	1.004931	1.743769	1.605394
NTR.g0524	chr4:8320826-8322832	2007	4.282524489	5.818796	12.31881	24.6941	7.577051	5.051429

NTR.g0525	chr4:8323623-8324916	1294	4.015298833	10.10891	15.38937	5.753519	10.92798	44.41657
NTR.g0527	chr4:42325741-42334734	8994	8.316239548	9.991342	9.375585	7.860968	13.77162	9.418527
NTR.g0528	chr4:42582082-42583615	1534	4.717345966	5.140048	19.4954	10.43683	21.52047	20.39738
NTR.g0530	chr4:106722729-106727945	5217	4.742708041	0.871827	1.061785	0.60349	6.283105	0.385634
NTR.g0532	chr4:126718143-126718897	755	1.620925533	2.085763	2.222693	1.082845	11.58696	1.729863
NTR.g0535	chr4:133819166-133822108	2943	0.394312909	0.190272	3.244207	1.22928	1.142713	2.18823
NTR.g0536	chr4:135498348-135500965	2618	0.412409395	0.398008	1.938912	0	6.21481	1.056303
NTR.g0537	chr4:138894013-138894328	316	3466.640595	7137.999	3068.003	5957.64	4336.728	5939.119
NTR.g0538	chr4:143566128-143571636	5509	22.90969139	4.538301	31.46214	7.195852	80.92826	41.69264
NTR.g0539	chr4:148808261-148809633	1373	25.33424979	23.85685	44.75539	8.068967	49.30147	8.520717
NTR.g0540	chr4:148809760-148812772	3013	41.20173421	38.70863	66.58674	51.57358	71.64118	43.17132
NTR.g0541	chr4:149350833-149352763	1931	26.44896103	27.69044	20.95594	8.729322	37.09248	12.50032
NTR.g0543	chr5:34654336-34657027	2692	5.377558724	2.919246	0.395034	0.299369	2.727214	1.434742
NTR.g0545	chr5:34833203-34835948	2746	2.242007438	0.16644	0.202704	0.153616	2.598921	0.441727
NTR.g0546	chr5:94946835-94949755	2921	5.553203903	8.629354	13.82838	35.71437	21.60294	6.428658
NTR.g0547	chr5:105627420-105630267	2848	33.41836983	17.00527	244.2408	325.8073	83.81573	260.155
NTR.g0548	chr5:110263626-110264038	413	1.309336576	0	4.001237	0.233251	1.82133	0.67072
NTR.g0549	chr5:110335174-110336601	1428	1.330421996	0.855975	1.82434	3.357599	3.598506	5.490032
NTR.g0552	chr5:115337016-115343599	6584	81.80346074	44.15671	264.9314	80.80326	249.1193	87.25896
NTR.g0553	chr5:120282157-120283393	1237	5.166408183	3.086568	4.048247	3.72529	4.943192	2.59053
NTR.g0554	chr5:122896142-122898664	2523	1.313365304	1.267502	1.764197	0.16712	3.044889	0.800933
NTR.g0555	chr5:123482211-123483805	1595	2.658542224	1.425391	0.867982	1.841793	4.280229	1.387083
NTR.g0556	chr5:136100895-136103209	2315	14.51424728	20.33332	46.22551	20.99086	25.5086	52.76494
NTR.g0557	chr5:143691010-143695533	4524	0	0	8.625103	0.871516	10.77489	0.208839
NTR.g0560	chr5:34836231-34837491	1261	4.568227143	2.755439	1.342324	2.797449	1.323865	1.706336
NTR.g0561	chr5:52767172-52795418	28247	6.785188147	7.750984	3.580619	5.612017	8.025864	5.615625
NTR.g0562	chr5:52796276-52812050	15775	5.048689205	8.194468	8.631286	5.723422	7.714538	4.11447
NTR.g0564	chr5:74345960-74346345	386	8.702639027	3.199519	1.948324	0.369125	2.401915	0.70762
NTR.g0565	chr5:94945538-94946646	1109	12.74160369	11.98924	13.85273	19.29367	22.15498	10.60639
NTR.g0566	chr5:94947297-94950207	2911	4.169171255	6.258904	10.18943	23.10665	15.72603	4.858994
NTR.g0572	chr5:110476405-110478106	1702	3.508304579	3.385793	3.298807	2.916593	1.355601	2.396216
NTR.g0573	chr5:113604192-113650324	46133	9.671814875	12.78685	4.848933	4.711507	8.076253	6.196752
NTR.g0574	chr5:115340808-115344104	3297	18.27554196	11.55826	59.13164	18.78846	58.79888	18.92885
NTR.g0576	chr5:123974419-123975458	1040	2.377357449	1.66861	0.762066	1.34754	2.755818	1.47615
NTR.g0577	chr5:136097174-136102642	5469	5.958123952	3.953168	20.02397	6.385017	8.309526	25.9111
NTR.g0578	chr5:141065183-141072518	7336	2.520110546	1.216053	3.332282	1.402947	4.381944	2.958428
NTR.g0579	chr5:141094391-141096280	1890	0	3.661672	0.24775	0.187752	1.221715	0.899814
NTR.g0587	chr6:41147514-41151260	3747	13.54207202	9.3269	35.2693	20.51107	28.56047	18.89609
NTR.g0590	chr6:47696784-47698653	1870	27.36701387	15.37377	27.3651	95.32256	60.60641	11.85687
NTR.g0591	chr6:47707570-47713406	5837	122.468246	65.06312	68.92425	100.5572	129.0165	50.74697
NTR.g0593	chr6:60840520-60841841	1322	2.579824704	5.432151	7.994018	8.564917	11.14647	5.806764
NTR.g0594	chr6:68101866-68102613	748	2.264422938	5.0263	1.064602	3.630545	2.099924	6.186517
NTR.g0595	chr6:68630368-68630840	473	10.97598147	18.59606	3.440184	5.214154	6.785753	12.49456

NTR.g0598	chr6:70703132-70709444	6313	0	0	0.946592	5.738849	0.933575	0
NTR.g0603	chr6:126758414-126762783	4370	1.657645529	0.79988	0	0	4.80383	0.35381
NTR.g0604	chr6:127581677-127621350	39674	10.3785169	8.265028	7.826632	5.187834	15.39594	7.265254
NTR.g0605	chr6:128871337-128875241	3905	2.278837129	0.338348	2.678446	3.278922	8.331242	3.292542
NTR.g0606	chr6:133670837-133672275	1439	5.736239765	27.02835	35.69361	17.43204	12.1254	9.794809
NTR.g0609	chr6:148583715-148584401	687	27.16278242	51.92917	14.89878	15.43837	85.76438	12.14748
NTR.g0612	chr6:41148343-41151677	3335	11.52430433	7.812883	38.13542	22.65074	25.98177	17.50972
NTR.g0614	chr6:47581162-47600970	19809	166.8247554	250.939	134.6211	49.42584	385.5274	125.1191
NTR.g0617	chr6:60840522-60842596	2075	3.05981164	6.791811	8.990923	10.62921	14.18766	7.57585
NTR.g0618	chr6:69893176-69893676	501	1.773895995	1.069969	1.04248	1.382541	0.771108	6.815212
NTR.g0619	chr6:70088584-70089095	512	6.456459687	7.269496	6.745459	13.41878	2.078969	11.33085
NTR.g0620	chr6:83403287-83406579	3293	6.355419629	8.354801	5.249107	7.099084	8.561837	7.068516
NTR.g0629	chr6:128748835-128762435	13601	140.783544	594.7808	153.5886	65.70101	186.633	73.84392
NTR.g0631	chr6:149251298-149253744	2447	0.992659823	0.319332	1.555639	0.884183	0.383562	4.802494
NTR.g0633	chr7:4299335-4304439	5105	0	0	12.60293	0.367342	0	0
NTR.g0634	chr7:11725469-11727489	2021	4.671921354	6.558218	12.97914	19.67198	5.415661	19.21841
NTR.g0635	chr7:18123738-18125574	1837	13.81948348	13.3369	20.95848	28.58936	29.71351	20.1718
NTR.g0636	chr7:18126526-18127791	1266	6.804755016	10.94522	28.11423	19.46912	31.07405	17.95715
NTR.g0637	chr7:20055042-20059472	4431	1.848535811	1.297443	1.777654	2.694322	3.311617	2.295588
NTR.g0638	chr7:20063692-20065429	1738	2.070939899	0.888276	1.081819	2.254548	1.867149	0.589366
NTR.g0639	chr7:23560464-23563096	2633	7.970310252	6.672563	8.803621	7.099324	13.24647	17.05294
NTR.g0640	chr7:26715832-26717501	1670	4.882441207	6.853736	4.347431	3.426401	6.517224	3.031608
NTR.g0641	chr7:26772976-26773363	388	17.84982845	21.72037	29.64553	19.70121	19.34197	22.85936
NTR.g0643	chr7:29042049-29049394	7346	4.43369307	3.889878	11.13295	9.478043	10.74625	8.740683
NTR.g0644	chr7:29065699-29067731	2033	4.814723131	2.680725	6.311979	4.783412	5.151873	0.94861
NTR.g0645	chr7:30741367-30742061	695	9.279211385	11.5138	8.101883	4.722966	20.89815	8.374974
NTR.g0646	chr7:31981873-31993776	11904	1.231279972	0.792189	0	0.731151	4.75764	1.752041
NTR.g0650	chr7:55995527-55996190	664	3.83348422	4.695667	6.585269	9.981038	4.956491	5.412869
NTR.g0652	chr7:71146772-71163807	17036	3.516610224	3.042725	5.273483	4.104418	8.152864	4.348247
NTR.g0653	chr7:71165695-71167319	1625	2.360426122	2.404554	5.240424	2.5697	8.664604	1.791334
NTR.g0663	chr7:136811360-136838129	26770	14.29250478	11.52274	6.645221	2.815129	12.82273	7.315474
NTR.g0666	chr7:18123790-18144772	20983	6.059576871	9.803955	23.88019	19.04962	30.57603	14.91173
NTR.g0668	chr7:26231593-26233426	1834	0	0	0	9.757313	5.692326	0
NTR.g0669	chr7:26712190-26716317	4128	15.7696327	22.31517	7.881426	13.22251	14.63477	12.43702
NTR.g0673	chr7:29041767-29046477	4711	9.062385592	8.901175	21.36609	17.14716	18.77235	14.65023
NTR.g0674	chr7:31196263-31198540	2278	1.038970524	1.086247	8.039308	6.092435	2.709828	4.509107
NTR.g0678	chr7:51343991-51348092	4102	0.759959152	1.955789	6.550301	2.030735	4.404699	1.946481
NTR.g0682	chr7:71159175-71161275	2101	1.996929702	0.688284	2.514754	1.905758	2.066811	2.070248
NTR.g0683	chr7:82919005-82927181	8177	29.98201919	34.94471	48.12817	61.34448	40.5211	56.69179
NTR.g0685	chr7:88125480-88138116	12637	4.126155996	3.020879	2.675699	1.013863	2.638904	4.130145
NTR.g0687	chr7:108135695-108140708	5014	4.415624728	1.988667	4.151946	1.573236	3.412376	2.010618
NTR.g0689	chr7:121685194-121692014	6821	0	0	4.894571	0.309105	0	0
NTR.g0690	chr7:133491728-133495107	3380	12.65466099	9.886514	4.013548	2.862673	8.84809	4.287347

NTR.g0691	chr7:134597601-134598747	1147	2.95247635	4.070535	2.478723	2.404419	3.813634	3.31295
NTR.g0693	chr7:136796511-136801528	5018	11.17512583	7.1158	2.572787	0.307853	12.82059	0.983602
NTR.g0694	chr7:146078700-146082129	3430	2.746447552	2.65054	2.286539	2.344389	2.918359	2.149421
NTR.g0700	chr8:19704045-19707103	3059	7.547846334	5.470181	5.846293	3.477428	10.02328	3.876331
NTR.g0701	chr8:28361092-28369463	8372	1.842490894	3.852658	0	0.273524	4.271607	0.262176
NTR.g0702	chr8:34824611-34828545	3935	10.95258476	4.149017	12.63257	11.67037	29.18932	6.729182
NTR.g0703	chr8:72238919-72239630	712	3.698284971	5.204994	3.984569	9.607911	5.180159	5.262448
NTR.g0705	chr8:74750482-74761508	11027	11.15177296	20.90617	35.25414	71.58697	13.67	73.21322
NTR.g0706	chr8:86118994-86121158	2165	5.711289261	0	0	0	0.696894	0.256637
NTR.g0707	chr8:87662538-87664357	1820	2.456654525	1.185433	77.23915	20.51432	22.06997	4.456991
NTR.g0708	chr8:96969954-96994392	24439	5.415548975	4.181148	57.634	45.60631	23.39859	39.84711
NTR.g0709	chr8:108090081-108090462	382	1.778515515	2.574613	1.741991	0.792081	4.466895	1.01229
NTR.g0710	chr8:109201195-109204474	3280	22.54375699	21.75652	20.30984	16.20686	48.81619	38.78728
NTR.g0713	chr8:19853138-19854496	1359	10.38026666	8.636019	7.152025	5.260612	15.35211	7.33433
NTR.g0714	chr8:47814473-47815562	1090	3.532499783	2.083365	5.074601	3.758287	5.687293	3.93746
NTR.g0717	chr8:70644979-70729547	84569	4.472322529	2.411964	1.700656	1.405974	4.421892	2.807585
NTR.g0723	chr8:74750226-74761508	11283	9.47288581	17.52233	26.64211	60.87198	8.627857	62.19769
NTR.g0724	chr8:74848161-74852947	4787	0	0.659101	0.53514	2.433272	0.527781	0.388719
NTR.g0725	chr8:75078316-75081011	2696	4.55299972	1.098502	1.04055	0.337954	2.638904	0.539888
NTR.g0726	chr8:86724775-86731411	6637	8.723697766	10.57349	7.145783	8.983183	11.45222	9.286337
NTR.g0728	chr8:87654768-87664157	9390	3.236729659	3.123701	52.78482	16.75758	19.69798	6.390383
NTR.g0729	chr8:90905284-90912748	7465	9.493186237	7.187615	7.376939	4.002092	17.77329	5.358526
NTR.g0730	chr8:94677544-94682174	4631	6.470491655	4.633045	6.869153	3.160577	5.322973	3.742257
NTR.g0731	chr8:109202278-109204365	2088	21.72835361	20.17453	19.00263	15.50147	47.98731	31.12335
NTR.g0734	chr9:20816640-20817860	1221	0.77140432	0.744466	3.02225	1.145177	3.576828	0.439066
NTR.g0740	chr9:95956708-95959465	2758	11.49039029	11.55769	10.46186	9.586054	9.94279	3.247005
NTR.g0741	chr9:96425753-96427920	2168	4.488548763	3.082247	2.739277	1.922137	5.903514	0.958042
NTR.g0742	chr9:99351838-99352459	622	2.003961144	2.707574	1.413221	3.926936	3.252171	0.684365
NTR.g0745	chr9:121186920-121187916	997	3.794166433	2.197003	2.229749	0.337954	1.319452	0
NTR.g0747	chr9:13217550-13218042	493	7.37478685	11.64642	5.778669	14.13304	13.47085	1.717184
NTR.g0748	chr9:13657819-13673429	15611	36.21704322	26.83839	45.98857	19.29797	32.23661	3.31295
NTR.g0751	chr9:48329524-48331007	1484	10.62191755	16.70532	6.70466	9.986788	6.384445	2.183188
NTR.g0753	chr9:62508694-62513903	5210	14.51459642	1.658811	1.122357	0.170111	3.099384	1.467481
NTR.g0754	chr9:63777549-63784345	6797	7.114062062	2.816671	4.931176	3.574518	4.229013	0.934422
NTR.g0755	chr9:63784574-63785233	660	2.324013015	2.242857	2.003132	2.208051	5.567561	0.264555
NTR.g0756	chr9:95956708-95964706	7999	12.8551026	12.9304	11.598	10.56332	11.22863	3.709942
NTR.g0757	chr9:96392351-96397425	5075	2.770588065	1.671148	0.814107	1.079672	4.616744	0.591358
NTR.g0758	chr9:96406988-96413915	6928	5.29145112	4.425781	3.316982	3.770566	5.724895	0
NTR.g0759	chr9:96418037-96419973	1937	2.602705632	5.274817	3.365017	3.245599	3.318744	0.44442
NTR.g0762	chrX:30546330-30547455	1126	5.620987308	12.99668	23.3986	21.90446	20.49766	4.699027
NTR.g0763	chrX:32017452-32021477	4026	4.502570925	39.62949	26.46063	13.63582	36.53546	0.615062
NTR.g0765	chrX:120211300-120212549	1250	4.01263195	1.742629	16.50695	5.718618	11.04712	2.055508
NTR.g0766	chrX:121395291-121397033	1743	18.9989788	8.556578	27.09443	4.512745	79.87187	3.892962

NTR.g0767	chrX:121397729-121398840	1112	3.894012918	6.359746	4.928919	2.401255	10.76395	0.511473
NTR.g0769	chrX:146905580-146924885	19306	4.098892153	4.674985	24.52627	7.567466	6.263222	1.33617
NTR.g0771	chrX:7758366-7761949	3584	0.55254851	0.533253	1.298883	0.984333	3.202553	0.235873
NTR.g0772	chrX:30545933-30547189	1257	0.699743809	16.2074	15.90067	27.63193	12.70784	0.995695
NTR.g0773	chrX:32016596-32017807	1212	8.702639027	89.58654	55.04016	30.63738	96.55699	1.415241
NTR.g0774	chrX:32018167-32021477	3311	16.03233248	40.06974	43.16336	34.41928	36.37494	5.030579
NTR.g0775	chrX:67626400-67627798	1399	2.454692341	3.948288	3.205709	0.242939	1.896976	0.465718
NTR.g0777	chrX:95335590-95344328	8739	3.390094557	3.271711	1.086701	0.823535	1.786262	0.263122
NTR.g0779	chrX:113400722-113413393	12672	805.4506364	1389.872	507.4038	760.7066	780.4076	171.8425
NTR.g0780	chrX:121394388-121395728	1341	12.14595962	3.34909	18.1507	2.318285	52.89876	2.518381
NTR.g0781	chrX:122065053-122067537	2485	28.85704048	10.4435	11.30577	100.6723	47.85337	4.448375
NTR.g0782	chrX:132575827-132579592	3766	5.056685229	0.956883	0.582687	0	1.953892	0
NTR.g0784	chrX:146904830-146927004	22175	3.755096069	4.336191	27.60399	11.09759	21.61345	1.501062

**Table S2. AS events significantly changed after virus infection**

ASE	Gene	Str	Inclusive	Exclusive	Inclusive	Exclusive
A3SS	ENSMUSG00000000339	-	chr3:116210769-116210863	chr3:116209911-116210863	ENSMUST00000140677,ENSMUST00000000348, ENSMUST00000143425	ENSMUST00000153005
A3SS	ENSMUSG00000000827	+	chr2:181232037-181234550	chr2:181232037-181234008/chr2 :181232037-181236610	ENSMUST00000129390,ENSMUST00000108799, ENSMUST00000153909,ENSMUST00000149163, ENSMUST00000108800,ENSMUST00000069712, ENSMUST00000000844	ENSMUST00000108802/ENSMUST00000125529
A3SS	ENSMUSG000000005628	+	chr3:94928500-94929119	chr3:94928500-94929437	ENSMUST00000131597	ENSMUST00000005769
A3SS	ENSMUSG000000019179	+	chr5:136254671-136259175	chr5:136254671-136260054	ENSMUST00000130795,ENSMUST00000019323	ENSMUST00000138101
A3SS	ENSMUSG000000021789	+	chr14:41945121-41945505	chr14:41945121-41945724	ENSMUST00000170719	ENSMUST00000022314
A3SS	ENSMUSG000000022285	-	chr15:36720743-36723900	chr15:36723430-36723900	ENSMUST00000110361	ENSMUST00000022894
A3SS	ENSMUSG000000022747	-	chr16:58507727-58524040	chr16:58523785-58524040	ENSMUST00000123918	ENSMUST00000151510
A3SS	ENSMUSG000000022747	-	chr16:58507727-58524237	chr16:58523785-58524237/chr16 :58524145-58524237	ENSMUST00000114358	ENSMUST00000126978,ENSMUST00000114357/ ENSMUST00000123918
A3SS	ENSMUSG000000022747	-	chr16:58523785-58524237	chr16:58507727-58524237/chr16 :58524145-58524237	ENSMUST00000126978,ENSMUST00000114357	ENSMUST00000114358/ENSMUST00000123918
A3SS	ENSMUSG000000022890	-	chr16:84831752-84835666	chr16:84835228-84835666	ENSMUST00000138279	ENSMUST00000023608,ENSMUST00000114191
A3SS	ENSMUSG000000023944	-	chr17:45708568-45708714	chr17:45706499-45708714	ENSMUST00000024739,ENSMUST00000163966	ENSMUST00000165127
A3SS	ENSMUSG000000024121	-	chr17:24306231-24306548	chr17:24301849-24306548	ENSMUST00000098862	ENSMUST00000150647
A3SS	ENSMUSG000000026879	+	chr2:35111993-35122340	chr2:35111993-35139425	ENSMUST00000113016	ENSMUST00000167857
A3SS	ENSMUSG000000027523	+	chr2:174153442-174153609	chr2:174153442-174159713	ENSMUST00000087871,ENSMUST00000149016, ENSMUST00000133356,ENSMUST00000156623	ENSMUST00000124935
A3SS	ENSMUSG000000030201	-	chr6:134492063-134516661	chr6:134470611-134516661	ENSMUST00000032322	ENSMUST00000126836
A3SS	ENSMUSG000000030538	-	chr7:87377264-87377396	chr7:87375310-87377396/chr7:8	ENSMUST00000065163	ENSMUST00000131402/ENSMUST00000071457

				7373434-87377396		
A3SS	ENSMUSG00000032366	-	chr9:66895718-66896826	chr9:66896056-66896826	ENSMUST00000131279,ENSMUST00000113685, ENSMUST00000129733,ENSMUST00000050905, ENSMUST00000030185,ENSMUST00000113693, ENSMUST00000113687,ENSMUST00000129466, ENSMUST00000113697,ENSMUST00000113707	ENSMUST00000113701,ENSMUST00000113705,E NSMUST00000034928
A3SS	ENSMUSG00000033685	+	chr7:107646958-107647078	chr7:107646958-107647245	ENSMUST00000149808	ENSMUST00000126534
A3SS	ENSMUSG00000038145	+	chr9:122026525-122041011	chr9:122026525-122046024	ENSMUST00000119215,ENSMUST00000118886, ENSMUST00000134949,ENSMUST00000146832	ENSMUST00000120173
A3SS	ENSMUSG00000039771	+	chr5:136592675-136595865	chr5:136592675-136597959	ENSMUST00000041366,ENSMUST00000111127	ENSMUST00000111129
A3SS	ENSMUSG00000040264	+	chr3:142163710-142166785	chr3:142163710-142164226	ENSMUST00000065526	ENSMUST00000045254,ENSMUST00000090127,E NSMUST00000165451
A3SS	ENSMUSG00000045932	+	chr19:34625512-34637353	chr19:34625512-34644709	ENSMUST00000149829	ENSMUST00000102826
A3SS	ENSMUSG00000060126	+	chr14:76245263-76245424	chr14:76245263-76246010	ENSMUST00000150047,ENSMUST00000154533, ENSMUST00000110894	ENSMUST00000142061
A3SS	ENSMUSG00000062825	-	chr11:120208663-120209283	chr11:120209189-120209283	ENSMUST00000089616	ENSMUST00000071555,ENSMUST00000062147,E NSMUST00000131103,ENSMUST00000141406,E NSMUST00000128055
A3SS	ENSMUSG00000068039	+	chr17:13109495-13110664	chr17:13109495-13110909	ENSMUST00000129632,ENSMUST00000151715, ENSMUST00000151287,ENSMUST00000143961, ENSMUST00000133003	ENSMUST00000089024
A5SS	ENSMUSG00000005871	+	chr18:34425876-34427952	chr18:34420811-34427952	ENSMUST00000163295	ENSMUST00000066133,ENSMUST00000079362,E NSMUST00000115781,ENSMUST00000170023
A5SS	ENSMUSG00000006333	+	chr7:3656370-3658253	chr7:3657783-3658253/chr7:365 7521-3658253	ENSMUST00000108624	ENSMUST00000146927/ENSMUST00000006496, ENSMUST00000108625
A5SS	ENSMUSG00000022884	+	chr16:23111969-23113240	chr16:23112530-23113240	ENSMUST00000147117,ENSMUST00000023599,	ENSMUST00000123413

					ENSMUST00000168891,ENSMUST00000131871, ENSMUST00000115341	
A5SS	ENSMUSG00000023092	+	chrX:54043827-54045021	chrX:54043223-54045021/chrX:5 4044615-54045021	ENSMUST00000116596,ENSMUST00000114773, ENSMUST00000023854,ENSMUST00000114772	ENSMUST00000114770,ENSMUST00000114768/ ENSMUST00000114769
A5SS	ENSMUSG00000023092	+	chrX:54043223-54045021	chrX:54043827-54045021/chrX:5 4044615-54045021	ENSMUST00000114770,ENSMUST00000114768	ENSMUST00000116596,ENSMUST00000114773,E NSMUST00000023854,ENSMUST00000114772/E NSMUST00000114769
A5SS	ENSMUSG00000027639	-	chr2:156925239-156927057	chr2:156925239-156927457	ENSMUST00000139263	ENSMUST00000057725,ENSMUST00000109550
A5SS	ENSMUSG00000027940	+	chr3:89895013-89902297	chr3:89894001-89902297	ENSMUST00000136125	ENSMUST00000119158
A5SS	ENSMUSG00000028788	+	chr4:129522436-129523709	chr4:129520006-129523709	ENSMUST00000165853,ENSMUST00000030578	ENSMUST00000141754
A5SS	ENSMUSG00000032366	-	chr9:66875974-66877471	chr9:66875974-66878836	ENSMUST00000113685,ENSMUST00000050905, ENSMUST00000113684	ENSMUST00000113686,ENSMUST00000113687
A5SS	ENSMUSG00000040264	+	chr3:142171060-142184004	chr3:142182023-142184004	ENSMUST00000090127	ENSMUST00000065526,ENSMUST00000165451
A5E	ENSMUSG00000001348	-	chr9:21934573-21936181	chr9:21934573-21934967/chr9:2 1934573-21940057	ENSMUST00000069330	ENSMUST00000115315/ENSMUST00000165735
A5E	ENSMUSG00000001348	-	chr9:21934573-21934967	chr9:21934573-21936181/chr9:2 1934573-21940057	ENSMUST00000115315	ENSMUST00000069330/ENSMUST00000165735
A5E	ENSMUSG00000001891	-	chr11:21254409-21270190	chr11:21254409-21271018	ENSMUST00000102875	ENSMUST00000060895
A5E	ENSMUSG00000001911	-	chr8:87296214-87297253	chr8:87296214-87323897	ENSMUST00000109764,ENSMUST00000109762, ENSMUST00000063596	ENSMUST00000076715,ENSMUST00000126806,E NSMUST00000099070
A5E	ENSMUSG00000002504	-	chr17:24779315-24781764	chr17:24779315-24784472	ENSMUST00000019684	ENSMUST00000088403,ENSMUST0000002572
A5E	ENSMUSG00000002963	+	chr7:52113579-52113823	chr7:52112924-52113823	ENSMUST0000003044,ENSMUST00000107876, ENSMUST00000123015,ENSMUST00000098478	ENSMUST00000124168,ENSMUST00000139003
A5E	ENSMUSG00000002983	-	chr7:20213319-20214540	chr7:20213319-20213425/chr7:2 0213319-20213526/chr7:2021331 9-20213957	ENSMUST00000137615,ENSMUST00000108452, ENSMUST00000094762,ENSMUST00000131759, ENSMUST00000049912,ENSMUST00000098754,	ENSMUST00000153309/ENSMUST00000141586/ ENSMUST00000130543



					ENSMUST00000148040	
AFE	ENSMUSG00000002992	-	chr7:20258962-20262071	chr7:20258962-20259184/chr7:20258962-20266654	ENSMUST00000142352,ENSMUST00000127648,ENSMUST00000003074	ENSMUST00000134116/ENSMUST00000150569
AFE	ENSMUSG00000003099	-	chr7:17600894-17613042	chr7:17600894-17607764	ENSMUST00000138353,ENSMUST00000156366	ENSMUST00000003183,ENSMUST00000142597,ENSMUST00000127311
AFE	ENSMUSG00000003123	-	chr7:26173672-26175081	chr7:26173672-26180520/chr7:26173672-26182617	ENSMUST00000054301	ENSMUST00000003207/ENSMUST00000149349
AFE	ENSMUSG00000003352	+	chr15:98465644-98469919	chr15:98462951-98469919	ENSMUST00000003442	ENSMUST00000109150
AFE	ENSMUSG00000003500	-	chr6:29159268-29162069	chr6:29159268-29166072	ENSMUST00000160878,ENSMUST00000078155,ENSMUST00000162215,ENSMUST00000159124,ENSMUST00000162099,ENSMUST00000160749	ENSMUST00000162739
AFE	ENSMUSG00000003644	-	chr4:133427918-133430523	chr4:133427918-133428759/chr4:133427918-133436832	ENSMUST00000157067,ENSMUST00000168974	ENSMUST00000137486/ENSMUST00000105894,ENSMUST000000003741
AFE	ENSMUSG00000004085	+	chr2:72123912-72136245	chr2:72136095-72136245	ENSMUST00000090824,ENSMUST00000150126,ENSMUST00000112073,ENSMUST00000135469,ENSMUST00000135204	ENSMUST00000144111
AFE	ENSMUSG00000004263	-	chr6:124699939-124706002	chr6:124699939-124703635/chr6:124699939-124706314	ENSMUST00000146872	ENSMUST00000129411/ENSMUST00000088357
AFE	ENSMUSG00000004771	-	chr9:64574624-64585391	chr9:64574624-64576041	ENSMUST00000171100	ENSMUST00000172298,ENSMUST00000004892,ENSMUST00000169058
AFE	ENSMUSG00000004897	+	chr3:87711087-87717013	chr3:87713985-87717013/chr3:87711489-87717013/chr3:87710636-87717013	ENSMUST00000162631,ENSMUST00000159492	ENSMUST00000160198/ENSMUST00000161616/ENSMUST00000005017
AFE	ENSMUSG00000005514	+	chr5:136165122-136191742	chr5:136150531-136191742/chr5:136145986-136191742	ENSMUST00000005651,ENSMUST00000122113	ENSMUST00000153515/ENSMUST00000153500
AFE	ENSMUSG00000006390	+	chr4:118100820-118103101	chr4:118102435-118103101	ENSMUST00000006557,ENSMUST00000129419,	ENSMUST00000067896

					ENSMUST00000102673,ENSMUST00000167636	
AFE	ENSMUSG00000007880	-	chr4:133278966-133308384	chr4:133278966-133309829/chr4:133278966-133312310	ENSMUST00000145664,ENSMUST00000105896,ENSMUST00000105897	ENSMUST00000138473/ENSMUST00000008024
AFE	ENSMUSG00000007880	-	chr4:133278966-133309829	chr4:133278966-133308384/chr4:133278966-133312310	ENSMUST00000138473	ENSMUST00000145664,ENSMUST00000105896,ENSMUST00000105897/ENSMUST00000008024
AFE	ENSMUSG00000010067	+	chr9:107457256-107459784	chr9:107456575-107459784/chr9:107454177-107459784/chr9:107459082-107459784	ENSMUST00000010211	ENSMUST00000093786,ENSMUST00000122225/ENSMUST00000156198/ENSMUST00000121635
AFE	ENSMUSG00000010067	+	chr9:107454177-107459784	chr9:107457256-107459784/chr9:107456575-107459784/chr9:107459082-107459784	ENSMUST00000156198	ENSMUST00000010211/ENSMUST00000093786,ENSMUST00000122225/ENSMUST00000121635
AFE	ENSMUSG00000010080	-	chr11:94357995-94359456	chr11:94357995-94361007	ENSMUST00000142992	ENSMUST00000127305,ENSMUST00000165069,ENSMUST00000010224
AFE	ENSMUSG00000012405	-	chr14:19102974-19103473	chr14:19102974-19103337/chr14:19102974-19103359/chr14:19102974-19103733	ENSMUST00000080281	ENSMUST00000079419/ENSMUST00000100799/ENSMUST00000147121
AFE	ENSMUSG00000014606	-	chr11:70459730-70460793	chr11:70459730-70460270	ENSMUST00000139638	ENSMUST00000014750
AFE	ENSMUSG00000015053	+	chr6:88143994-88149511	chr6:88148875-88149511	ENSMUST00000170089	ENSMUST00000015197
AFE	ENSMUSG00000015656	+	chr9:40609703-40610001	chr9:40609431-40610001	ENSMUST00000133964	ENSMUST00000140984,ENSMUST00000117870,ENSMUST00000015800,ENSMUST00000117557
AFE	ENSMUSG00000015668	-	chrX:97820726-97821155	chrX:97820726-97821225	ENSMUST00000059099,ENSMUST00000151548	ENSMUST00000015812
AFE	ENSMUSG00000017756	+	chr13:73901338-73921967	chr13:73870785-73921967	ENSMUST00000017900,ENSMUST00000171201	ENSMUST00000068263
AFE	ENSMUSG00000018819	+	chr7:149646871-149670384	chr7:149669352-149670384/chr7:149669196-149670384/chr7:149658269-149670384/chr7:149663271-149670384/chr7:149661322-1	ENSMUST00000105967,ENSMUST00000018963,ENSMUST00000105968	ENSMUST00000156960/ENSMUST00000140626/ENSMUST00000038946,ENSMUST00000128986,ENSMUST00000105966/ENSMUST00000149521/ENSMUST00000132956

				49670384		
AFE	ENSMUSG00000018983	+	chr4:135736840-135737201	chr4:135736492-135737201	ENSMUST00000168263,ENSMUST00000149750	ENSMUST00000061721
AFE	ENSMUSG00000019254	-	chr7:4448937-4452868	chr7:4448937-4449018	ENSMUST00000125220	ENSMUST00000124248,ENSMUST00000013886,ENSMUST00000145689
AFE	ENSMUSG00000019920	+	chr10:57857348-57861769	chr10:57834447-57861769/chr10:57814945-57861769/chr10:57786435-57861769	ENSMUST00000105468,ENSMUST00000020077	ENSMUST00000171062/ENSMUST00000171162/ENSMUST00000020078
AFE	ENSMUSG00000019920	+	chr10:57814945-57861769	chr10:57834447-57861769/chr10:57857348-57861769/chr10:57786435-57861769	ENSMUST00000171162	ENSMUST00000171062/ENSMUST00000105468,ENSMUST00000020077/ENSMUST00000020078
AFE	ENSMUSG00000019929	+	chr10:96942423-96945973	chr10:96945181-96945973	ENSMUST00000105287	ENSMUST00000163448
AFE	ENSMUSG00000019947	-	chr10:67597854-67599234	chr10:67597854-67648774	ENSMUST00000165054	ENSMUST00000020106
AFE	ENSMUSG00000019970	+	chr10:21712213-21714772	chr10:21714631-21714772/chr10:21698788-21714772/chr10:21689330-21714772/chr10:21713987-21714772	ENSMUST00000150089,ENSMUST00000100036	ENSMUST00000020145,ENSMUST00000141218,ENSMUST00000126560/ENSMUST00000142174,ENSMUST00000164659/ENSMUST00000120509/ENSMUST00000092673
AFE	ENSMUSG00000020023	+	chr10:94039197-94041168	chr10:94013721-94041168/chr10:94038172-94041168/chr10:93977849-94041168	ENSMUST00000117929	ENSMUST00000117460/ENSMUST00000121471/ENSMUST00000065060
AFE	ENSMUSG00000020120	-	chr11:16895358-16908560	chr11:16895358-16952186/chr11:16895358-16902817	ENSMUST00000102881	ENSMUST00000020321/ENSMUST00000156101
AFE	ENSMUSG00000020120	-	chr11:16895358-16952186	chr11:16895358-16908560/chr11:16895358-16902817	ENSMUST00000020321	ENSMUST00000102881/ENSMUST00000156101
AFE	ENSMUSG00000020225	+	chr10:119638905-119652597	chr10:119645998-119652597	ENSMUST00000156877	ENSMUST00000020446,ENSMUST00000141206,ENSMUST00000134797
AFE	ENSMUSG00000020265	+	chr10:77069713-77072557	chr10:77069095-77072557/chr10	ENSMUST00000099538	ENSMUST00000129492/ENSMUST00000020501,

				:77069086-77072557		ENSMUST00000141228,ENSMUST00000137841
AFE	ENSMUSG00000020315	-	chr11:30059445-30097724	chr11:30059445-30119579	ENSMUST00000102838,ENSMUST00000039018	ENSMUST00000011877,ENSMUST00000006629,E NSMUST00000124231
AFE	ENSMUSG00000020400	-	chr11:54754384-54769523	chr11:54754384-54769350/chr11 :54754384-54776335	ENSMUST00000102731,ENSMUST00000124304, ENSMUST00000108889,ENSMUST00000101203	ENSMUST00000155316/ENSMUST00000018482
AFE	ENSMUSG00000020453	+	chr11:3191887-3193283	chr11:3193018-3193283/chr11:3 189350-3193283/chr11:3192376- 3193283	ENSMUST00000020731,ENSMUST00000123983, ENSMUST00000057089,ENSMUST00000094471, ENSMUST00000110043,ENSMUST00000093402	ENSMUST00000136285/ENSMUST00000101644, ENSMUST00000134089,ENSMUST00000144396/ ENSMUST00000153603
AFE	ENSMUSG00000020538	-	chr11:60020759-60033955	chr11:60020759-60023838	ENSMUST00000020846	ENSMUST00000144942,ENSMUST00000064158
AFE	ENSMUSG00000020681	+	chr11:105836717-105836850	chr11:105836192-105836850	ENSMUST00000001964	ENSMUST00000132280,ENSMUST00000001963
AFE	ENSMUSG00000021000	+	chr12:60232591-60237051	chr12:60230883-60237051	ENSMUST00000170992	ENSMUST00000069430,ENSMUST00000043421
AFE	ENSMUSG00000021266	-	chr12:110126758-110131370	chr12:110126758-110132279	ENSMUST00000161410,ENSMUST00000161154	ENSMUST00000109848,ENSMUST00000160477
AFE	ENSMUSG00000021360	+	chr13:41014170-41048945	chr13:40983654-41048945/chr13 :40956642-41048945	ENSMUST00000067778	ENSMUST00000069958/ENSMUST00000110191
AFE	ENSMUSG00000021360	+	chr13:40983654-41048945	chr13:41014170-41048945/chr13 :40956642-41048945	ENSMUST00000069958	ENSMUST00000067778/ENSMUST00000110191
AFE	ENSMUSG00000021789	+	chr14:41945537-41945724	chr14:41945121-41945724	ENSMUST00000170719	ENSMUST00000022314
AFE	ENSMUSG00000022010	+	chr14:76904648-76905056	chr14:76888482-76905056/chr14 :76887731-76905056/chr14:7681 8816-76905056/chr14:76904100- 76905056	ENSMUST00000022587	ENSMUST00000101618/ENSMUST00000142683/ ENSMUST00000110888,ENSMUST00000110887,E NSMUST00000048371,ENSMUST00000088906/E NSMUST00000140251
AFE	ENSMUSG00000022010	+	chr14:76818816-76905056	chr14:76888482-76905056/chr14 :76887731-76905056/chr14:7690 4648-76905056/chr14:76904100- 76905056	ENSMUST00000110888,ENSMUST00000110887, ENSMUST00000048371,ENSMUST00000088906	ENSMUST00000101618/ENSMUST00000142683/ ENSMUST00000022587/ENSMUST00000140251
AFE	ENSMUSG00000022037	+	chr14:66588736-66590569	chr14:66589541-66590569/chr14	ENSMUST00000153460	ENSMUST00000127387/ENSMUST00000144619/

				:66590381-66590569/chr14:66587525-66590569/chr14:66590012-66590569/chr14:66589781-66590569		ENSMUST00000022616/ENSMUST00000128539/ ENSMUST00000138191
AFE	ENSMUSG00000022037	+	chr14:66587525-66590569	chr14:66589541-66590569/chr14:66588736-66590569/chr14:66590381-66590569/chr14:66590012-66590569/chr14:66589781-66590569	ENSMUST00000022616	ENSMUST00000127387/ENSMUST00000153460/ ENSMUST00000144619/ENSMUST00000128539/ ENSMUST00000138191
AFE	ENSMUSG00000022148	+	chr15:6604849-6608532	chr15:6602544-6608532	ENSMUST00000162154	ENSMUST00000110659,ENSMUST00000090461,ENSMUST00000163073
AFE	ENSMUSG00000022194	+	chr14:55503650-55513685	chr14:55513506-55513685/chr14:55511575-55513685/chr14:55513331-55513685	ENSMUST00000134077	ENSMUST00000141446/ENSMUST00000140691/ ENSMUST00000022808,ENSMUST00000150975,ENSMUST00000116476
AFE	ENSMUSG00000022389	+	chr15:81633316-81645374	chr15:81642150-81645374/chr15:81641576-81645374	ENSMUST00000052561,ENSMUST00000109553	ENSMUST00000023024/ENSMUST00000168200
AFE	ENSMUSG00000022389	+	chr15:81642150-81645374	chr15:81633316-81645374/chr15:81641576-81645374	ENSMUST00000023024	ENSMUST00000052561,ENSMUST00000109553/ ENSMUST00000168200
AFE	ENSMUSG00000022433	-	chr15:79269285-79272191	chr15:79269285-79272358	ENSMUST00000135519	ENSMUST00000117786
AFE	ENSMUSG00000022433	-	chr15:79269289-79271651	chr15:79269289-79272358/chr15:79269289-79273977	ENSMUST00000122044	ENSMUST00000120859/ENSMUST00000156043
AFE	ENSMUSG00000022433	-	chr15:79269289-79272358	chr15:79269289-79271651/chr15:79269289-79273977	ENSMUST00000120859	ENSMUST00000122044/ENSMUST00000156043
AFE	ENSMUSG00000022565	-	chr15:76025242-76036028	chr15:76025242-76038492/chr15:76025242-76038854/chr15:76025242-76039395/chr15:76025242-	ENSMUST00000171634,ENSMUST00000073418, ENSMUST00000076442	ENSMUST00000169289,ENSMUST00000080857/ ENSMUST00000171562,ENSMUST00000076355/ ENSMUST00000071869,ENSMUST00000170915/

				76028410/chr15:76025242-76059788/chr15:76025242-76061604/chr15:76025242-76029724/chr15:76025242-76029979/chr15:76025242-76030899/chr15:76025242-76025854		ENSMUST00000072692/ENSMUST00000074834/ENSMUST00000089610,ENSMUST00000167754,ENSMUST00000166428/ENSMUST00000169438/ENSMUST00000054449,ENSMUST00000165453,ENSMUST00000169714/ENSMUST00000170728,ENSMUST00000169108/ENSMUST00000023226
AFE	ENSMUSG00000022756	-	chr16:17576058-17576174	chr16:17576058-17576733/chr16:17576058-17577019	ENSMUST00000090165	ENSMUST00000172164/ENSMUST00000063544
AFE	ENSMUSG00000022951	-	chr16:92397681-92400141	chr16:92397681-92466078	ENSMUST00000023672	ENSMUST00000060005
AFE	ENSMUSG00000023036	+	chr18:37981788-37984675	chr18:37836561-37984675/chr18:37968631-37984675/chr18:37928194-37984675/chr18:37918021-37984675/chr18:37977637-37984675/chr18:37904312-37984675/chr18:37899197-37984675/chr18:37887970-37984675	ENSMUST00000055935	ENSMUST00000073447/ENSMUST00000076807/ENSMUST00000044851/ENSMUST00000061279/ENSMUST00000066140/ENSMUST00000003599/ENSMUST00000091935/ENSMUST00000066149
AFE	ENSMUSG00000023092	+	chrX:54007568-54041166	chrX:54039759-54041166/chrX:54041013-54041166/chrX:54033085-54041166/chrX:54032971-54041166/chrX:54032700-54041166	ENSMUST00000116596,ENSMUST00000023854,ENSMUST00000114770,ENSMUST00000114769	ENSMUST00000144600/ENSMUST00000151033/ENSMUST00000155882/ENSMUST00000114772,ENSMUST00000114768/ENSMUST00000114773
AFE	ENSMUSG00000023092	+	chrX:54032971-54041166	chrX:54039759-54041166/chrX:54041013-54041166/chrX:54007568-54041166/chrX:54033085-54041166/chrX:54032700-54041166	ENSMUST00000114772,ENSMUST00000114768	ENSMUST00000144600/ENSMUST00000151033/ENSMUST00000116596,ENSMUST00000023854,ENSMUST00000114770,ENSMUST00000114769/ENSMUST00000155882/ENSMUST00000114773

AFE	ENSMUSG00000023206	+	chr2:11627571-11639891	chr2:11627205-11639891	ENSMUST00000114833,ENSMUST00000114832, ENSMUST00000114831,ENSMUST00000114834, ENSMUST00000078834,ENSMUST00000138856	ENSMUST00000126394,ENSMUST00000148748,E NSMUST00000128156,ENSMUST00000123600,E NSMUST00000091456,ENSMUST00000135341,E NSMUST00000138349
AFE	ENSMUSG00000024048	-	chr17:71346235-71351448	chr17:71346235-71349329/chr17 :71346235-71352012/chr17:7134 6235-71347225	ENSMUST00000148960	ENSMUST00000150456/ENSMUST00000123686/ ENSMUST00000024846
AFE	ENSMUSG00000024050	-	chr17:32524762-32525763	chr17:32524762-32526205/chr17 :32524762-32525384/chr17:3252 4762-32525549	ENSMUST00000170603	ENSMUST00000003725,ENSMUST00000087699,E NSMUST00000163107,ENSMUST00000114463,E NSMUST00000114462/ENSMUST00000165912/E NSMUST00000087703,ENSMUST00000170617,E NSMUST00000172216,ENSMUST00000169280,E NSMUST00000171728
AFE	ENSMUSG00000024050	-	chr17:32524762-32526205	chr17:32524762-32525763/chr17 :32524762-32525384/chr17:3252 4762-32525549	ENSMUST00000003725,ENSMUST00000087699, ENSMUST00000163107,ENSMUST00000114463, ENSMUST00000114462	ENSMUST00000170603/ENSMUST00000165912/ ENSMUST00000087703,ENSMUST00000170617,E NSMUST00000172216,ENSMUST00000169280,E NSMUST00000171728
AFE	ENSMUSG00000024969	-	chr19:7365272-7369528	chr19:7365272-7415658/chr19:7 365272-7416257	ENSMUST00000025921	ENSMUST00000032556,ENSMUST00000165989,E NSMUST00000032557,ENSMUST00000051711,E NSMUST00000164205,ENSMUST00000169541,E NSMUST00000165286,ENSMUST00000171721,E NSMUST00000168872,ENSMUST00000165965/E NSMUST00000171393
AFE	ENSMUSG00000024969	-	chr19:7365272-7415658	chr19:7365272-7369528/chr19:7 365272-7416257	ENSMUST00000032556,ENSMUST00000165989, ENSMUST00000032557,ENSMUST00000051711, ENSMUST00000164205,ENSMUST00000169541,	ENSMUST00000025921/ENSMUST00000171393

					ENSMUST00000165286,ENSMUST00000171721, ENSMUST00000168872,ENSMUST00000165965	
AFE	ENSMUSG00000025025	+	chr19:53404210-53405841	chr19:53385463-53405841/chr19: :53405090-53405841	ENSMUST00000025998	ENSMUST00000003870/ENSMUST00000111737
AFE	ENSMUSG00000025025	+	chr19:53385463-53405841	chr19:53404210-53405841/chr19: :53405090-53405841	ENSMUST00000003870	ENSMUST00000025998/ENSMUST00000111737
AFE	ENSMUSG00000025132	-	chr11:120441707-120442836	chr11:120441707-120442304	ENSMUST00000106197	ENSMUST00000067936
AFE	ENSMUSG00000025223	-	chr19:46110855-46113545	chr19:46110855-46119320	ENSMUST00000137771,ENSMUST00000056931	ENSMUST00000026252,ENSMUST00000156585,E NSMUST00000152946
AFE	ENSMUSG00000025353	-	chr10:128257161-128258598	chr10:128257161-128257317	ENSMUST00000116228	ENSMUST00000026409
AFE	ENSMUSG00000025408	+	chr10:126730815-126732377	chr10:126727947-126732377	ENSMUST00000026475	ENSMUST00000139091
AFE	ENSMUSG00000025647	+	chr9:108953967-108958492	chr9:108955494-108958492/chr9: :108957777-108958492/chr9:108 957593-108958492/chr9:1089575 21-108958492	ENSMUST00000135942,ENSMUST00000128976, ENSMUST00000143754,ENSMUST00000112059, ENSMUST00000026737,ENSMUST00000154113, ENSMUST00000059097,ENSMUST00000120305, ENSMUST00000120218,ENSMUST00000155541	ENSMUST00000124432/ENSMUST00000151141/ ENSMUST00000152771/ENSMUST00000154184
AFE	ENSMUSG00000026031	+	chr1:58770503-58783150	chr1:58768436-58783150	ENSMUST00000097722,ENSMUST00000164900, ENSMUST00000069333,ENSMUST00000114309, ENSMUST00000140940	ENSMUST00000114313
AFE	ENSMUSG00000026430	-	chr1:133078831-133096430	chr1:133078831-133108834	ENSMUST00000068564	ENSMUST00000027688,ENSMUST00000112442
AFE	ENSMUSG00000026817	+	chr2:32484008-32485369	chr2:32485136-32485369	ENSMUST00000156578,ENSMUST00000113278, ENSMUST00000113277	ENSMUST00000068271
AFE	ENSMUSG00000026833	+	chr2:28048982-28063598	chr2:28061619-28063598	ENSMUST00000100244,ENSMUST00000113920, ENSMUST00000152415	ENSMUST00000102879,ENSMUST00000028177
AFE	ENSMUSG00000026872	-	chr2:44968612-44968936	chr2:44968612-44972720	ENSMUST00000126743	ENSMUST00000076836
AFE	ENSMUSG00000026879	+	chr2:35138121-35139425	chr2:35138241-35139425/chr2:3	ENSMUST00000028239,ENSMUST00000124323	ENSMUST00000139867/ENSMUST00000113016/



				5122423-35139425/chr2:3511199 3-35139425/chr2:35135238-3513 9425		ENSMUST00000167857/ENSMUST00000142324
AFE	ENSMUSG00000026879	+	chr2:35122423-35139425	chr2:35138241-35139425/chr2:3 5138121-35139425/chr2:3511199 3-35139425/chr2:35135238-3513 9425	ENSMUST00000113016	ENSMUST00000139867/ENSMUST00000028239, ENSMUST00000124323/ENSMUST00000167857/ ENSMUST00000142324
AFE	ENSMUSG00000026879	+	chr2:35111993-35139425	chr2:35138241-35139425/chr2:3 5138121-35139425/chr2:3512242 3-35139425/chr2:35135238-3513 9425	ENSMUST00000167857	ENSMUST00000139867/ENSMUST00000028239, ENSMUST00000124323/ENSMUST00000113016/ ENSMUST00000142324
AFE	ENSMUSG00000026921	+	chr2:26439568-26441105	chr2:26436761-26441105/chr2:2 6435629-26441105	ENSMUST00000102907,ENSMUST00000100290, ENSMUST00000139801,ENSMUST00000102906	ENSMUST00000080087,ENSMUST00000166920/ ENSMUST00000152713
AFE	ENSMUSG00000026921	+	chr2:26436761-26441105	chr2:26439568-26441105/chr2:2 6435629-26441105	ENSMUST00000080087,ENSMUST00000166920	ENSMUST00000102907,ENSMUST00000100290,E NSMUST00000139801,ENSMUST00000102906/E NSMUST00000152713
AFE	ENSMUSG00000026956	-	chr2:25220207-25220401	chr2:25220207-25220847	ENSMUST00000091308,ENSMUST00000102925	ENSMUST00000152537
AFE	ENSMUSG00000026970	-	chr2:60680529-60800748	chr2:60680529-60719175/chr2:6 0680529-60726065/chr2:6068052 9-60727047	ENSMUST00000028347,ENSMUST00000112510	ENSMUST00000112509,ENSMUST00000164147/ ENSMUST00000151846/ENSMUST00000169261, ENSMUST00000132529
AFE	ENSMUSG00000026970	-	chr2:60680529-60719175	chr2:60680529-60800748/chr2:6 0680529-60726065/chr2:6068052 9-60727047	ENSMUST00000112509,ENSMUST00000164147	ENSMUST00000028347,ENSMUST00000112510/ ENSMUST00000151846/ENSMUST00000169261, ENSMUST00000132529
AFE	ENSMUSG00000027381	+	chr2:127951988-127954356	chr2:127953548-127954356	ENSMUST00000103210,ENSMUST00000019281, ENSMUST00000103211,ENSMUST00000089634	ENSMUST00000129206
AFE	ENSMUSG00000027580	-	chr2:180975776-180976517	chr2:180975776-180976671	ENSMUST00000121484	ENSMUST00000029102,ENSMUST00000087446,E

						NSMUST00000094203,ENSMUST00000155049,E NSMUST00000108831
AFE	ENSMUSG00000027601	+	chr3:19088892-19100026	chr3:19088288-19100026/chr3:1 9087548-19100026/chr3:1908738 6-19100026	ENSMUST00000132035	ENSMUST00000130645,ENSMUST00000138777,E NSMUST00000029129/ENSMUST00000130806,E NSMUST00000117529/ENSMUST00000119865
AFE	ENSMUSG00000027601	+	chr3:19088288-19100026	chr3:19088892-19100026/chr3:1 9087548-19100026/chr3:1908738 6-19100026	ENSMUST00000130645,ENSMUST00000138777, ENSMUST00000029129	ENSMUST00000132035/ENSMUST00000130806, ENSMUST00000117529/ENSMUST00000119865
AFE	ENSMUSG00000027763	+	chr3:60277095-60399516	chr3:60333726-60399516/chr3:6 0305345-60399516	ENSMUST00000169236	ENSMUST00000029327,ENSMUST00000076983,E NSMUST00000099087/ENSMUST00000166251
AFE	ENSMUSG00000027763	+	chr3:60333726-60399516	chr3:60277095-60399516/chr3:6 0305345-60399516	ENSMUST00000029327,ENSMUST00000076983, ENSMUST00000099087	ENSMUST00000169236/ENSMUST00000166251
AFE	ENSMUSG00000027940	+	chr3:89877767-89890368	chr3:89884539-89890368/chr3:8 9883918-89890368/chr3:8988378 5-89890368	ENSMUST00000121503,ENSMUST00000119570, ENSMUST00000062193	ENSMUST00000127955/ENSMUST00000149432/ ENSMUST00000029549,ENSMUST00000131354,E NSMUST00000118566,ENSMUST00000147430,E NSMUST00000029550,ENSMUST00000119158
AFE	ENSMUSG00000028042	-	chr3:89185437-89196957	chr3:89185437-89195876/chr3:8 9185437-89189584/chr3:8918543 7-89190985	ENSMUST00000029677,ENSMUST00000040116	ENSMUST00000107432/ENSMUST00000107435/ ENSMUST00000107433
AFE	ENSMUSG00000028101	+	chr3:96501118-96503343	chr3:96500454-96503343	ENSMUST00000064900	ENSMUST00000162934,ENSMUST00000107076
AFE	ENSMUSG00000028410	+	chr4:40669666-40670736	chr4:40670286-40670736/chr4:4 0670169-40670736/chr4:4067003 4-40670736	ENSMUST00000030118,ENSMUST00000137476	ENSMUST00000149794/ENSMUST00000129204, ENSMUST00000164233,ENSMUST00000125442/ ENSMUST00000137246
AFE	ENSMUSG00000028906	-	chr4:131563353-131604786	chr4:131563353-131626543/chr4 :131563353-131631117	ENSMUST00000105969,ENSMUST00000084253, ENSMUST00000141291,ENSMUST00000097859, ENSMUST00000105981	ENSMUST00000144754,ENSMUST00000030739,E NSMUST00000131953/ENSMUST00000105975

AFE	ENSMUSG00000029082	+	chr5:44211843-44212849	chr5:44210332-44212849	ENSMUST00000101237	ENSMUST00000126976
AFE	ENSMUSG00000029452	+	chr5:121902379-121913796	chr5:121903364-121913796/chr5:121902804-121913796/chr5:121913279-121913796	ENSMUST00000111795	ENSMUST00000078094/ENSMUST00000060004,ENSMUST00000150805,ENSMUST00000145729,ENSMUST00000124247/ENSMUST00000094357,ENSMUST00000031405,ENSMUST00000156080
AFE	ENSMUSG00000029713	-	chr5:137971137-137971412	chr5:137971137-137974367	ENSMUST00000111027,ENSMUST00000150063,ENSMUST00000132525,ENSMUST00000170293,ENSMUST00000111020,ENSMUST00000111023,ENSMUST00000140139,ENSMUST00000031726	ENSMUST00000143495
AFE	ENSMUSG00000029810	-	chr6:48788364-48790360	chr6:48788364-48790995	ENSMUST00000164733,ENSMUST00000101429	ENSMUST00000166247
AFE	ENSMUSG00000029823	+	chr6:38508075-38509204	chr6:38501908-38509204	ENSMUST00000101519,ENSMUST00000159936,ENSMUST00000160511	ENSMUST00000114879,ENSMUST00000162386
AFE	ENSMUSG00000030047	-	chr6:87446106-87446217	chr6:87446106-87482820	ENSMUST00000101197,ENSMUST00000145128	ENSMUST00000113637
AFE	ENSMUSG00000030064	-	chr6:97373518-97437587	chr6:97373518-97478724/chr6:97373518-97409188/chr6:97373518-97381358	ENSMUST00000032146,ENSMUST00000113353	ENSMUST00000113355,ENSMUST00000142589/ENSMUST00000113359/ENSMUST00000124050
AFE	ENSMUSG00000030087	+	chr6:90412719-90416414	chr6:90415451-90416414	ENSMUST00000032174	ENSMUST00000113530
AFE	ENSMUSG00000030168	-	chr6:119320426-119338500	chr6:119320426-119367438	ENSMUST00000169744	ENSMUST00000032272
AFE	ENSMUSG00000030201	-	chr6:134470611-134491670	chr6:134470611-134516661	ENSMUST00000032322	ENSMUST00000126836
AFE	ENSMUSG00000030276	+	chr6:113342890-113343097	chr6:113340812-113343097/chr6:113339536-113343097	ENSMUST00000032414,ENSMUST00000038889	ENSMUST00000129894/ENSMUST00000140505
AFE	ENSMUSG00000030495	+	chr7:35971669-35982234	chr7:35980310-35982234	ENSMUST00000167441	ENSMUST00000131048,ENSMUST00000001854
AFE	ENSMUSG00000030695	-	chr7:133941640-133943516	chr7:133941640-133942559	ENSMUST00000133514	ENSMUST00000087566
AFE	ENSMUSG00000030695	-	chr7:133941290-133943516	chr7:133941290-133942559/chr7:133941290-133941488/chr7:133941290-133943802/chr7:1339412	ENSMUST00000151137	ENSMUST00000032934/ENSMUST00000133514,ENSMUST00000087566/ENSMUST00000141355,ENSMUST00000106348/ENSMUST00000135707

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AFE	ENSMUSG00000030737	-	chr7:106840403-106855021	chr7:106840403-106859773/chr7:106840403-106843573/chr7:106840403-106844045	ENSMUST00000168867,ENSMUST00000107088	ENSMUST00000032985/ENSMUST00000137914,ENSMUST00000145381/ENSMUST00000107086
AFE	ENSMUSG00000030986	-	chr7:140940719-140951083	chr7:140940719-140968285	ENSMUST00000140593,ENSMUST00000033290,ENSMUST00000063669	ENSMUST00000106139
AFE	ENSMUSG00000031328	-	chrX:71471673-71472200	chrX:71471673-71471756	ENSMUST00000130007,ENSMUST00000144429,ENSMUST00000033699,ENSMUST00000101454,ENSMUST00000114299	ENSMUST00000156766
AFE	ENSMUSG00000031570	+	chr8:26830847-26831027	chr8:26830807-26831027/chr8:26830955-26831027	ENSMUST00000138879,ENSMUST00000139836,ENSMUST00000068916,ENSMUST00000095387,ENSMUST00000133117	ENSMUST00000124764,ENSMUST00000145678/ENSMUST00000138548
AFE	ENSMUSG00000031851	+	chr8:128258249-128259968	chr8:128259786-128259968/chr8:128257131-128259968/chr8:128253962-128259968	ENSMUST00000065135,ENSMUST00000034313	ENSMUST00000152189/ENSMUST00000151172,ENSMUST00000138656,ENSMUST00000146055/ENSMUST00000143504
AFE	ENSMUSG00000031851	+	chr8:128257131-128259968	chr8:128258249-128259968/chr8:128259786-128259968/chr8:128253962-128259968	ENSMUST00000151172,ENSMUST00000138656,ENSMUST00000146055	ENSMUST00000065135,ENSMUST00000034313/ENSMUST00000152189/ENSMUST00000143504
AFE	ENSMUSG00000032125	+	chr9:37209736-37210737	chr9:37210472-37210737	ENSMUST00000163262	ENSMUST00000115046,ENSMUST00000102895,ENSMUST00000172374,ENSMUST00000156972,ENSMUST00000063237,ENSMUST00000115048
AFE	ENSMUSG00000032812	+	chr7:108496713-108515535	chr7:108510750-108515535/chr7:108509853-108515535	ENSMUST00000107010,ENSMUST00000107011	ENSMUST00000138628,ENSMUST00000133423/ENSMUST00000137384
AFE	ENSMUSG00000032812	+	chr7:108533554-108534066	chr7:108533938-108534066/chr7:108527046-108534066	ENSMUST00000107010,ENSMUST00000107011,ENSMUST00000127873,ENSMUST00000084896,ENSMUST00000148902	ENSMUST00000134143/ENSMUST00000084895

AFE	ENSMUSG00000032812	+	chr7:108522015-108533376	chr7:108531498-108533376/chr7:108531470-108533376/chr7:108527046-108533376/chr7:108532620-108533376	ENSMUST00000107010,ENSMUST00000107011,ENSMUST00000084896	ENSMUST00000141083/ENSMUST00000152082/ENSMUST00000127873/ENSMUST00000148902
AFE	ENSMUSG00000032812	+	chr7:108527046-108533376	chr7:108522015-108533376/chr7:108531498-108533376/chr7:108531470-108533376/chr7:108532620-108533376	ENSMUST00000127873	ENSMUST00000107010,ENSMUST00000107011,ENSMUST00000084896/ENSMUST00000141083/ENSMUST00000152082/ENSMUST00000148902
AFE	ENSMUSG00000034006	+	chr18:80452149-80453521	chr18:80453142-80453521/chr18:80453057-80453521/chr18:80452612-80453521	ENSMUST00000123750,ENSMUST00000131780,ENSMUST00000157056	ENSMUST00000134545,ENSMUST00000091798,ENSMUST00000070135/ENSMUST00000151677,ENSMUST00000129043/ENSMUST00000144468
AFE	ENSMUSG00000034255	-	chr11:103201718-103221561	chr11:103201718-103217579/chr11:103201718-103205824	ENSMUST00000107024,ENSMUST00000116102	ENSMUST00000136491/ENSMUST00000041385
AFE	ENSMUSG00000034377	+	chr17:6139156-6176829	chr17:6106996-6176829/chr17:6106582-6176829	ENSMUST00000039655,ENSMUST00000141059	ENSMUST00000149756/ENSMUST00000142030
AFE	ENSMUSG00000034377	+	chr17:6106996-6176829	chr17:6139156-6176829/chr17:6106582-6176829	ENSMUST00000149756	ENSMUST00000039655,ENSMUST00000141059/ENSMUST00000142030
AFE	ENSMUSG00000036402	+	chr6:66846983-66864447	chr6:66846521-66864447/chr6:66846509-66864447	ENSMUST00000114222	ENSMUST00000114228,ENSMUST00000043148,ENSMUST00000114226/ENSMUST00000114227,ENSMUST00000114225,ENSMUST00000114224
AFE	ENSMUSG00000036854	+	chr7:31338081-31339281	chr7:31337746-31339281/chr7:31338954-31339281/chr7:31338551-31339281	ENSMUST00000126989	ENSMUST00000123355/ENSMUST00000146732/ENSMUST00000044048
AFE	ENSMUSG00000038170	-	chr3:97562853-97596662	chr3:97562853-97570397	ENSMUST00000107038,ENSMUST00000090750,ENSMUST00000168438	ENSMUST00000045243
AFE	ENSMUSG00000038311	+	chr17:36282147-36292244	chr17:36292084-36292244	ENSMUST00000056774	ENSMUST00000090537

AFE	ENSMUSG00000038375	+	chr2:155208665-155211026	chr2:155207753-155211026/chr2: :155206928-155211026	ENSMUST00000134218	ENSMUST00000043237/ENSMUST00000151466
AFE	ENSMUSG00000038375	+	chr2:155207753-155211026	chr2:155208665-155211026/chr2: :155206928-155211026	ENSMUST00000043237	ENSMUST00000134218/ENSMUST00000151466
AFE	ENSMUSG00000038406	-	chr7:52269705-52270835	chr7:52269705-52271450	ENSMUST00000151264	ENSMUST00000153243
AFE	ENSMUSG00000038406	-	chr7:52268963-52271450	chr7:52268963-52269575	ENSMUST00000085383,ENSMUST00000171446	ENSMUST00000151264,ENSMUST00000153243,E NSMUST00000117282
AFE	ENSMUSG00000038521	-	chr6:124491506-124492211	chr6:124491506-124492206/chr6: :124491506-124492216/chr6:124 491506-124492286	ENSMUST00000160505	ENSMUST00000162844/ENSMUST00000159463/ ENSMUST00000162443
AFE	ENSMUSG00000038811	+	chr11:95704109-95705126	chr11:95703740-95705126/chr11 :95704706-95705126	ENSMUST00000100532	ENSMUST00000107711,ENSMUST00000107714/ ENSMUST00000107709
AFE	ENSMUSG00000039697	-	chr10:30374248-30375443	chr10:30374248-30382100	ENSMUST00000099982,ENSMUST00000092610, ENSMUST00000105514	ENSMUST00000068567
AFE	ENSMUSG00000039952	-	chr9:108155488-108165812	chr9:108155488-108166111	ENSMUST00000171412	ENSMUST00000080435
AFE	ENSMUSG00000040181	-	chr1:164789693-164789932	chr1:164789693-164796370	ENSMUST00000111518,ENSMUST00000134098	ENSMUST00000046049
AFE	ENSMUSG00000040479	-	chr2:91785026-91805577	chr2:91785026-91803443/chr2:9 1785026-91785331/chr2:9178502 6-91815724/chr2:91785026-9178 5983	ENSMUST00000128152	ENSMUST00000028667/ENSMUST00000111303/ ENSMUST00000099709/ENSMUST00000142090
AFE	ENSMUSG00000040479	-	chr2:91785026-91785331	chr2:91785026-91803443/chr2:9 1785026-91805577/chr2:9178502 6-91815724/chr2:91785026-9178 5983	ENSMUST00000111303	ENSMUST00000028667/ENSMUST00000128152/ ENSMUST00000099709/ENSMUST00000142090
AFE	ENSMUSG00000040813	-	chr9:106587326-106587575	chr9:106587326-106588166	ENSMUST00000163441	ENSMUST00000046735
AFE	ENSMUSG00000042010	+	chr5:114616149-114634059	chr5:114626199-114634059	ENSMUST00000031583,ENSMUST00000102582	ENSMUST00000146841

AFE	ENSMUSG00000042622	+	chr15:79178676-79187397	chr15:79178184-79187397	ENSMUST00000163691	ENSMUST00000096350
AFE	ENSMUSG00000042842	+	chr13:33060543-33063340	chr13:33057412-33063340	ENSMUST00000017184,ENSMUST00000110293	ENSMUST00000164541
AFE	ENSMUSG00000044328	-	chr11:77326467-77326662	chr11:77326467-77329052	ENSMUST00000060417,ENSMUST00000094005	ENSMUST00000136101
AFE	ENSMUSG00000044934	-	chr13:64246988-64253697	chr13:64246988-64251378/chr13:64246988-64253908	ENSMUST00000152644	ENSMUST00000134136/ENSMUST00000117241,ENSMUST00000059817
AFE	ENSMUSG00000045983	+	chr16:20672949-20674301	chr16:20674034-20674301	ENSMUST00000140576	ENSMUST00000115463,ENSMUST00000073840,ENSMUST00000154950,ENSMUST00000156226,ENSMUST00000141034,ENSMUST00000150333,ENSMUST00000115460,ENSMUST00000044783,ENSMUST00000128594,ENSMUST00000170807,ENSMUST00000142344,ENSMUST00000115461
AFE	ENSMUSG00000049775	-	chrX:163645983-163647038	chrX:163645983-163646255/chrX:163645983-163646940	ENSMUST00000112172	ENSMUST00000112175/ENSMUST00000112176
AFE	ENSMUSG00000049775	-	chrX:163645983-163646255	chrX:163645983-163647038/chrX:163645983-163646940	ENSMUST00000112175	ENSMUST00000112172/ENSMUST00000112176
AFE	ENSMUSG00000051355	-	chr11:22856692-22872651	chr11:22856692-22873900/chr11:22856692-22882079	ENSMUST00000162924	ENSMUST00000057843/ENSMUST00000159081,ENSMUST00000160826,ENSMUST00000093270
AFE	ENSMUSG00000051853	-	chr15:98571865-98573024	chr15:98571865-98593411	ENSMUST00000053183	ENSMUST00000129354
AFE	ENSMUSG00000053565	-	chr7:29763009-29765463	chr7:29763009-29766693	ENSMUST00000066070	ENSMUST00000098615
AFE	ENSMUSG00000053897	+	chr3:135488764-135489204	chr3:135489047-135489204/chr3:135488495-135489204	ENSMUST00000139953	ENSMUST00000167390/ENSMUST00000081978
AFE	ENSMUSG00000055322	-	chr1:74043678-74044819	chr1:74043678-74048861	ENSMUST00000050681	ENSMUST00000169786,ENSMUST00000171899
AFE	ENSMUSG00000055491	+	chr19:46119552-46135893	chr19:46131849-46135893/chr19:46131383-46135893/chr19:46131349-46135893/chr19:46131233-46135893	ENSMUST00000134015	ENSMUST00000147640,ENSMUST00000126127/ENSMUST00000150158/ENSMUST00000135327/ENSMUST00000062322,ENSMUST00000111899,ENSMUST00000099392

AFE	ENSMUSG00000055850	-	chr6:72311220-72311406	chr6:72311220-72312235/chr6:72311220-72312270/chr6:72311220-72312311/chr6:72311220-72311306	ENSMUST00000133978,ENSMUST00000154098,ENSMUST00000069580	ENSMUST00000151063/ENSMUST00000126065/ENSMUST00000069595/ENSMUST00000130064,ENSMUST00000125554
AFE	ENSMUSG00000057411	-	chr17:25928621-25928998	chr17:25928621-25929276	ENSMUST00000072735	ENSMUST00000164133
AFE	ENSMUSG00000057530	+	chr4:137469544-137469683	chr4:137418296-137469683/chr4:137461070-137469683	ENSMUST00000073194,ENSMUST00000151110	ENSMUST00000130407/ENSMUST00000102518
AFE	ENSMUSG00000057530	+	chr4:137418296-137469683	chr4:137469544-137469683/chr4:137461070-137469683	ENSMUST00000130407	ENSMUST00000073194,ENSMUST00000151110/ENSMUST00000102518
AFE	ENSMUSG00000059013	+	chr2:32580919-32593039	chr2:32591442-32593039	ENSMUST00000074248	ENSMUST00000141670
AFE	ENSMUSG00000059248	+	chr11:117127909-117151712	chr11:117094033-117151712/chr11:117080245-117151712	ENSMUST00000019038	ENSMUST00000106354/ENSMUST00000093907
AFE	ENSMUSG00000059248	+	chr11:117094033-117151712	chr11:117127909-117151712/chr11:117080245-117151712	ENSMUST00000106354	ENSMUST00000019038/ENSMUST00000093907
AFE	ENSMUSG00000059325	-	chr5:77524047-77524176	chr5:77524047-77543872	ENSMUST00000113453	ENSMUST00000081964
AFE	ENSMUSG00000060126	+	chr14:76245497-76246010	chr14:76245754-76246010/chr14:76245263-76246010	ENSMUST00000154533,ENSMUST00000110894	ENSMUST00000134040/ENSMUST00000142061
AFE	ENSMUSG00000060147	-	chr13:34023515-34027791	chr13:34023515-34027438/chr13:34023515-34027442/chr13:34023515-34027488/chr13:34023515-34027496/chr13:34023515-34027636/chr13:34023515-34088112/chr13:34023515-34094335	ENSMUST00000171985,ENSMUST00000043552	ENSMUST00000171252/ENSMUST00000167260/ENSMUST00000170991/ENSMUST00000017188/ENSMUST00000168350/ENSMUST00000171034,ENSMUST00000168400/ENSMUST00000166354
AFE	ENSMUSG00000060548	-	chr14:61643673-61656687	chr14:61643673-61664952	ENSMUST00000111236	ENSMUST00000111234,ENSMUST00000077444
AFE	ENSMUSG00000068036	+	chr17:14036465-14039537	chr17:14036234-14039537	ENSMUST00000124922	ENSMUST00000133422,ENSMUST00000137531,ENSMUST00000150848,ENSMUST00000137784,E



						NSMUST00000170827,ENSMUST00000139666,E NSMUST00000165039
AFE	ENSMUSG00000070436	-	chr7:106497974-106500334	chr7:106497974-106501392	ENSMUST00000094154	ENSMUST00000169437
AFE	ENSMUSG00000071176	+	chr8:14996434-14997542	chr8:14991234-14997542	ENSMUST00000162636	ENSMUST00000084207,ENSMUST00000163062,E NSMUST00000110800
AFE	ENSMUSG00000074457	+	chr3:90345239-90345916	chr3:90343387-90345916/chr3:9 0342943-90345916/chr3:9034133 9-90345916/chr3:90345116-9034 5916/chr3:90345112-90345916	ENSMUST00000098910	ENSMUST00000150833/ENSMUST00000107334/ ENSMUST00000098911/ENSMUST00000107331/ ENSMUST00000107333
AFE	ENSMUSG00000075254	+	chr16:33756854-33760844	chr16:33751295-33760844	ENSMUST00000128105	ENSMUST00000126532,ENSMUST00000152782
AFE	ENSMUSG00000078440	+	chr10:80850663-80853104	chr10:80851875-80853104/chr10 :80850225-80853104	ENSMUST00000131968	ENSMUST00000125635/ENSMUST00000144647
AFE	ENSMUSG00000090137	-	chr8:73033533-73034583	chr8:73033533-73034017/chr8:7 3033533-73034237	ENSMUST00000135446	ENSMUST00000129909/ENSMUST00000125184
AFE	ENSMUSG00000090137	-	chr8:73033533-73034017	chr8:73033533-73034583/chr8:7 3033533-73034237	ENSMUST00000129909	ENSMUST00000135446/ENSMUST00000125184
ALE	ENSMUSG00000001403	+	chr2:164597726-164598004	chr2:164597726-164602690	ENSMUST00000088248	ENSMUST00000001439
ALE	ENSMUSG00000001419	+	chr3:87971656-87971960	chr3:87971656-87972554	ENSMUST00000172414,ENSMUST00000119251, ENSMUST00000001455,ENSMUST00000107559, ENSMUST00000107558	ENSMUST00000139153
ALE	ENSMUSG00000001472	+	chr8:125924597-125927047	chr8:125924597-125924834/chr8 :125924597-125924976	ENSMUST00000108840	ENSMUST00000093050/ENSMUST00000057934, ENSMUST00000108839
ALE	ENSMUSG00000001964	+	chrX:71501215-71502217	chrX:71501215-71506121	ENSMUST00000088313,ENSMUST00000096424, ENSMUST00000152288,ENSMUST00000002029	ENSMUST00000119197
ALE	ENSMUSG00000004567	+	chr8:3512865-3514783	chr8:3512865-3513301	ENSMUST00000162797,ENSMUST00000004683	ENSMUST00000111076
ALE	ENSMUSG00000004980	-	chr6:51413253-51413410	chr6:51411432-51413410	ENSMUST00000114459	ENSMUST00000090002,ENSMUST00000069949

ALE	ENSMUSG00000005763	+	chr1:167789955-167791135	chr1:167789955-167796786/chr1: :167789955-167799149	ENSMUST00000005907,ENSMUST00000159070	ENSMUST00000161559,ENSMUST00000086002,E NSMUST00000027849/ENSMUST00000161971
ALE	ENSMUSG00000005763	+	chr1:167789955-167796786	chr1:167789955-167791135/chr1: :167789955-167799149	ENSMUST00000161559,ENSMUST00000086002, ENSMUST00000027849	ENSMUST0000005907,ENSMUST00000159070/ ENSMUST00000161971
ALE	ENSMUSG00000006378	+	chr15:78867304-78867573	chr15:78867304-78872358	ENSMUST00000006544	ENSMUST00000171999
ALE	ENSMUSG00000008682	+	chrX:71517656-71518011	chrX:71517656-71518254	ENSMUST00000151702,ENSMUST00000134330, ENSMUST00000149171,ENSMUST00000008826, ENSMUST00000125775,ENSMUST00000074085	ENSMUST00000135690
ALE	ENSMUSG00000010025	-	chr11:61038188-61062364	chr11:61059823-61062364/chr11: :61061984-61062364	ENSMUST00000071413,ENSMUST00000066277	ENSMUST00000074127/ENSMUST00000108715
ALE	ENSMUSG00000015942	+	chr5:134690539-134692006	chr5:134690539-134692116/chr5: :134690539-134690821/chr5:134 690539-134697663	ENSMUST00000016086,ENSMUST00000128842	ENSMUST00000152587/ENSMUST00000135588/ ENSMUST00000123941
ALE	ENSMUSG00000017119	+	chr11:101415412-101429713	chr11:101415412-101417124	ENSMUST00000149170	ENSMUST00000107208,ENSMUST00000123558,E NSMUST00000103098,ENSMUST00000107213,E NSMUST00000103099
ALE	ENSMUSG00000020610	+	chr11:109296070-109313076	chr11:109296070-109297877	ENSMUST00000020929	ENSMUST00000103061,ENSMUST00000092500
ALE	ENSMUSG00000021254	+	chr12:87610011-87622399	chr12:87610011-87629750	ENSMUST00000071106	ENSMUST00000110212
ALE	ENSMUSG00000021268	+	chr12:110796530-110809601	chr12:110796530-110796850	ENSMUST00000143836,ENSMUST00000143847	ENSMUST00000143272,ENSMUST00000128458,E NSMUST00000146701,ENSMUST00000124106,E NSMUST00000021696
ALE	ENSMUSG00000021493	-	chr13:55608484-55608691	chr13:55607728-55608691	ENSMUST00000069968,ENSMUST00000069929	ENSMUST00000046246,ENSMUST00000155098,E NSMUST00000109909
ALE	ENSMUSG00000021624	+	chr13:103492947-103494785	chr13:103492947-103529246	ENSMUST00000022124	ENSMUST00000170878
ALE	ENSMUSG00000022436	+	chr15:78740529-78741769	chr15:78740529-78742360/chr15: :78740529-78748560	ENSMUST00000001226,ENSMUST00000109695	ENSMUST00000109698/ENSMUST00000134703

ALE	ENSMUSG00000022565	-	chr15:76012329-76013340	chr15:76008815-76013340	ENSMUST00000054449,ENSMUST00000169714, ENSMUST00000080857,ENSMUST00000089610, ENSMUST00000171562,ENSMUST00000073418, ENSMUST00000169438,ENSMUST00000071869, ENSMUST00000076355,ENSMUST00000076442, ENSMUST00000074834,ENSMUST00000072692, ENSMUST00000023226,ENSMUST00000169108	ENSMUST00000165210
ALE	ENSMUSG00000022884	+	chr16:23111969-23113240	chr16:23111969-23112424	ENSMUST00000147117,ENSMUST00000023599, ENSMUST00000168891,ENSMUST00000131871, ENSMUST00000115341	ENSMUST00000077605,ENSMUST00000123413
ALE	ENSMUSG00000023092	+	chrX:54043223-54045021	chrX:54043223-54043641	ENSMUST00000114770,ENSMUST00000114768	ENSMUST00000116596,ENSMUST00000114773,E NSMUST00000023854,ENSMUST00000114772,E NSMUST00000144600,ENSMUST00000114769
ALE	ENSMUSG00000023944	-	chr17:45708568-45708714	chr17:45706499-45708714	ENSMUST00000130406	ENSMUST00000165127
ALE	ENSMUSG00000026254	+	chr1:89122808-89124376	chr1:89122808-89129169	ENSMUST00000113231,ENSMUST00000113233	ENSMUST00000050876
ALE	ENSMUSG00000027088	+	chr2:69630548-69633533	chr2:69630548-69637366	ENSMUST00000028494,ENSMUST00000112266	ENSMUST00000128765
ALE	ENSMUSG00000027180	+	chr2:103895183-103900039	chr2:103895183-103896158	ENSMUST00000028603	ENSMUST00000143799
ALE	ENSMUSG00000027194	-	chr2:94168642-94170675	chr2:94166975-94170675	ENSMUST00000094801	ENSMUST00000111238,ENSMUST00000111237,E NSMUST00000055081,ENSMUST00000170623
ALE	ENSMUSG00000027651	+	chr2:157875949-157956875	chr2:157875949-157884388	ENSMUST00000152452	ENSMUST00000103123,ENSMUST00000099135,E NSMUST00000156552,ENSMUST00000109518,E NSMUST00000128206,ENSMUST00000135603,E NSMUST00000029180
ALE	ENSMUSG00000027940	+	chr3:89894001-89894935	chr3:89894001-89902297/chr3:8 9894001-89903450	ENSMUST00000121503,ENSMUST00000118566, ENSMUST00000029550	ENSMUST00000119158/ENSMUST00000029549, ENSMUST00000119570,ENSMUST00000062193
ALE	ENSMUSG00000027940	+	chr3:89895013-89895853	chr3:89895013-89902297/chr3:8	ENSMUST00000121503	ENSMUST00000136125/ENSMUST00000118566,

				9895013-89903450		ENSMUST00000029550
ALE	ENSMUSG00000028273	-	chr3:141940965-141966907	chr3:141966385-141966907	ENSMUST00000029941	ENSMUST00000168967,ENSMUST00000090134,E NSMUST00000058626,ENSMUST00000170361,E NSMUST00000084039
ALE	ENSMUSG00000028464	-	chr4:43528875-43531102	chr4:43527733-43531102	ENSMUST00000030184,ENSMUST00000107913	ENSMUST00000150262,ENSMUST00000107914
ALE	ENSMUSG00000028464	-	chr4:43528713-43532261	chr4:43532169-43532261	ENSMUST00000133355	ENSMUST00000034926,ENSMUST00000150262,E NSMUST00000030184,ENSMUST00000107914,E NSMUST00000107913
ALE	ENSMUSG00000028745	+	chr4:138843747-138844776	chr4:138843747-138846918	ENSMUST00000150077,ENSMUST00000102507	ENSMUST00000030518,ENSMUST00000102508,E NSMUST00000042675
ALE	ENSMUSG00000029203	+	chr5:65983214-65985659	chr5:65983214-65986114	ENSMUST00000142407,ENSMUST00000164549, ENSMUST00000031105,ENSMUST00000131873	ENSMUST00000122141
ALE	ENSMUSG00000030337	+	chr6:125169655-125190353	chr6:125169655-125170068	ENSMUST00000063588	ENSMUST00000032487
ALE	ENSMUSG00000031167	-	chrX:7718334-7720373	chrX:7720081-7720373	ENSMUST00000115619	ENSMUST00000115615
ALE	ENSMUSG00000031167	-	chrX:7718334-7720377	chrX:7720081-7720377	ENSMUST00000040010	ENSMUST00000115620,ENSMUST00000115616
ALE	ENSMUSG00000031402	-	chrX:72359005-72376064	chrX:72371219-72376064	ENSMUST00000132935	ENSMUST00000155742
ALE	ENSMUSG00000032366	-	chr9:66877549-66878836	chr9:66875974-66878836/chr9:6 6872372-66878836/chr9:6687124 8-66878836	ENSMUST00000113685,ENSMUST00000050905, ENSMUST00000030185,ENSMUST00000113684	ENSMUST00000113686,ENSMUST00000113687/ ENSMUST00000113689,ENSMUST00000113690,E NSMUST00000113693/ENSMUST00000113701,E NSMUST00000113696,ENSMUST00000113705,E NSMUST00000129733,ENSMUST00000113695,E NSMUST00000139046,ENSMUST00000034928,E NSMUST00000113697,ENSMUST00000113707
ALE	ENSMUSG00000032366	-	chr9:66875974-66878836	chr9:66877549-66878836/chr9:6 6872372-66878836/chr9:6687124 8-66878836	ENSMUST00000113686,ENSMUST00000113687	ENSMUST00000113685,ENSMUST00000050905,E NSMUST00000030185,ENSMUST00000113684/E NSMUST00000113689,ENSMUST00000113690,E

						NSMUST00000113693,ENSMUST00000113701,E NSMUST00000113696,ENSMUST00000113705,E NSMUST00000129733,ENSMUST00000113695,E NSMUST00000139046,ENSMUST00000034928,E NSMUST00000113697,ENSMUST00000113707
ALE	ENSMUSG00000032366	-	chr9:66872372-66878836	chr9:66877549-66878836/chr9:66875974-66878836/chr9:66871248-66878836	ENSMUST00000113689,ENSMUST00000113690,ENSMUST00000113693	ENSMUST00000113685,ENSMUST00000050905,E NSMUST00000030185,ENSMUST00000113684/E NSMUST00000113686,ENSMUST00000113687/E NSMUST00000113701,ENSMUST00000113696,E NSMUST00000113705,ENSMUST00000129733,E NSMUST00000113695,ENSMUST00000139046,E NSMUST00000034928,ENSMUST00000113697,E NSMUST00000113707
ALE	ENSMUSG00000034377	+	chr17:6106996-6121828	chr17:6106996-6137211	ENSMUST00000146758	ENSMUST00000152672
ALE	ENSMUSG00000034842	+	chr5:92762008-92774138	chr5:92762008-92817160	ENSMUST00000135528	ENSMUST00000154245
ALE	ENSMUSG00000036006	+	chr13:24793599-24796639	chr13:24793599-24797960	ENSMUST00000132689,ENSMUST00000038477, ENSMUST00000091694,ENSMUST00000102959	ENSMUST00000110384,ENSMUST00000110383
ALE	ENSMUSG00000039021	-	chr2:32618525-32620413	chr2:32613088-32620413	ENSMUST00000161430,ENSMUST00000161950, ENSMUST00000066478,ENSMUST00000161089	ENSMUST00000091059
ALE	ENSMUSG00000039285	+	chr9:117968293-117970832	chr9:117968293-117968738/chr9:117968293-117978149	ENSMUST00000044454,ENSMUST00000133580, ENSMUST00000135251,ENSMUST00000133814	ENSMUST00000130735/ENSMUST00000154583
ALE	ENSMUSG00000040591	-	chr2:91117291-91119347	chr2:91119114-91119347	ENSMUST00000064652,ENSMUST00000111344	ENSMUST00000102594,ENSMUST00000094835
ALE	ENSMUSG00000040795	-	chr4:129295606-129295736	chr4:129295160-129295736	ENSMUST00000121442	ENSMUST00000046675,ENSMUST00000131559
ALE	ENSMUSG00000041936	-	chr4:155546531-155546671	chr4:155540623-155546671	ENSMUST00000075787,ENSMUST00000144749, ENSMUST00000105574,ENSMUST00000105575	ENSMUST00000071248
ALE	ENSMUSG00000047921	-	chr15:72631832-72733987	chr15:72587788-72733987/chr15	ENSMUST00000170633	ENSMUST00000089770,ENSMUST00000023276/

				:72682943-72733987		ENSMUST00000168191
ALE	ENSMUSG00000047921	-	chr15:72587788-72733987	chr15:72631832-72733987/chr15: :72682943-72733987	ENSMUST00000089770,ENSMUST00000023276	ENSMUST00000170633/ENSMUST00000168191
ALE	ENSMUSG00000052146	-	chr17:27768200-27769224	chr17:27767451-27769224	ENSMUST00000114882,ENSMUST00000114881, ENSMUST00000155071	ENSMUST00000025052
ALE	ENSMUSG00000054435	+	chr6:48640456-48640841	chr6:48640456-48641365	ENSMUST00000118802,ENSMUST00000121957, ENSMUST00000114527	ENSMUST00000119575
ALE	ENSMUSG00000056121	-	chr17:78778085-78780948	chr17:78771219-78780948	ENSMUST00000112487,ENSMUST00000070039	ENSMUST00000169193
ALE	ENSMUSG00000061353	+	chr6:117123596-117126104	chr6:117123596-117128601	ENSMUST00000073043	ENSMUST00000112871
ALE	ENSMUSG00000065979	-	chr16:11885838-11887671	chr16:11828690-11887671	ENSMUST00000073371	ENSMUST00000127972,ENSMUST00000096272,E NSMUST00000145169
ALE	ENSMUSG00000074884	+	chr2:121275819-121276457	chr2:121275819-121276324/chr2: :121275819-121281312/chr2:121 275819-121276434/chr2:1212758 19-121282745	ENSMUST00000139253	ENSMUST00000110615/ENSMUST00000154418/ ENSMUST00000099475/ENSMUST00000148575
ALE	ENSMUSG00000085362	+	chr3:9404929-9434709	chr3:9404929-9410931	ENSMUST00000146465	ENSMUST00000136458
ALE	ENSMUSG00000089844	-	chr1:85081719-85086102	chr1:85085391-85086102	ENSMUST00000161724	ENSMUST00000160792
ALE	ENSMUSG00000089847	+	chr7:112789136-112789276	chr7:112789136-112789542	ENSMUST00000151193	ENSMUST00000149819
ALE	ENSMUSG00000090083	+	chr17:29772967-29811084	chr17:29772967-29778161	ENSMUST00000130871	ENSMUST00000024817,ENSMUST00000161242
CE	ENSMUSG00000002885	-	chr8:86254010-86254156;chr8: 86255802-86255936;chr8:8625 7313-86257465;	chr8:86254010-86254156;chr8:8 6257313-86257465;	ENSMUST00000075843	ENSMUST00000109802
CE	ENSMUSG00000018411	+	chr11:104163675-104163724;c hr11:104166526-104166723;ch r11:104167940-104168072;	chr11:104163675-104163724;chr 11:104167940-104168072;	ENSMUST00000106988,ENSMUST00000106989	ENSMUST00000100347,ENSMUST00000106993,E NSMUST00000106991,ENSMUST00000132977,E NSMUST00000106992,ENSMUST00000106995
CE	ENSMUSG00000026193	-	chr1:71648884-71649071;chr1:	chr1:71648884-71649071;chr1:7	ENSMUST00000097700,ENSMUST00000055226	ENSMUST00000087254

			71650234-71650503;chr1:71651544-71651657;	1651544-71651657;		
CE	ENSMUSG00000029144	-	chr5:31475155-31475434;chr5:31475756-31475884;chr5:31476141-31476462;	chr5:31475155-31475434;chr5:31476141-31476462;	ENSMUST00000043161,ENSMUST00000163687	ENSMUST00000088010,ENSMUST00000133520,ENSMUST00000101411,ENSMUST00000151370
CE	ENSMUSG00000030605	-	chr7:86287755-86287936;chr7:86288164-86288274;chr7:86290133-86290264;	chr7:86287755-86287936;chr7:86290133-86290264;	ENSMUST00000032825	ENSMUST00000107409
CE	ENSMUSG00000032366	-	chr9:66883802-66883935;chr9:66895593-66895718;chr9:66895931-66896056;	chr9:66883802-66883935;chr9:66895931-66896056;	ENSMUST00000034928	ENSMUST00000113701,ENSMUST00000113705
CE	ENSMUSG00000032966	+	chr2:151368554-151368601;chr2:151369642-151369876;chr2:151383122-151383234;	chr2:151368554-151368601;chr2:151383122-151383234;	ENSMUST00000109880	ENSMUST00000044011,ENSMUST00000148295
CE	ENSMUSG00000032966	+	chr2:151368554-151368601;chr2:151369749-151369876;chr2:151383122-151383234;	chr2:151368554-151368601;chr2:151383122-151383234;	ENSMUST00000137597,ENSMUST00000143230	ENSMUST00000044011,ENSMUST00000148295
CE	ENSMUSG00000037266	+	chr4:134481208-134481347;chr4:134481692-134481736;chr4:134482650-134482733;	chr4:134481208-134481347;chr4:134482650-134482733;	ENSMUST00000154837	ENSMUST00000078084
CE	ENSMUSG00000049550	-	chr5:124061831-124061947;chr5:124063077-124065344;chr5:124067345-124067560;	chr5:124061831-124061947;chr5:124067345-124067560;	ENSMUST00000154672	ENSMUST00000111552,ENSMUST00000137363,ENSMUST00000163515,ENSMUST00000171894,ENSMUST00000063905,ENSMUST00000111566,ENSMUST00000111564,ENSMUST00000111561,ENSMUST00000031382
MXE	ENSMUSG00000015937	-	chr13:56185557-56185646;chr	chr13:56185557-56185646;chr13	ENSMUST00000045788	ENSMUST00000016081

			13:56189613-56189703;chr13: 56197485-56197595;	:56191119-56191218;chr13:5619 7485-56197595;		
MXE	ENSMUSG00000020149	+	chr11:20115633-20115705;chr 11:20118816-20118911;chr11: 20124651-20125464;	chr11:20115633-20115705;chr11 :20124370-20124501;chr11:2012 4651-20125464;	ENSMUST00000109599	ENSMUST00000079816
MXE	ENSMUSG00000020456	+	chr11:6213791-6213982;chr11: 6216768-6216858;chr11:62345 36-6234651;	chr11:6213791-6213982;chr11:6 216981-6217083;chr11:6224881- 6224925;chr11:6234536-6234651 ;	ENSMUST00000081894,ENSMUST00000109797	ENSMUST00000165203
MXE	ENSMUSG00000020456	+	chr11:6213791-6213982;chr11: 6216768-6216858;chr11:62345 36-6234651;	chr11:6213791-6213982;chr11:6 216981-6217083;chr11:6234536- 6234651;	ENSMUST00000081894,ENSMUST00000109797	ENSMUST00000003461,ENSMUST00000101555,E NSMUST00000101554
MXE	ENSMUSG000000021798	-	chr14:35380584-35380753;chr 14:35382899-35382913;chr14: 35384904-35385107;chr14:353 86176-35386198;chr14:353917 81-35391856;	chr14:35380584-35380753;chr14 :35390172-35390530;chr14:3539 1781-35391856;	ENSMUST00000090040	ENSMUST00000022330,ENSMUST00000022327,E NSMUST00000022328
MXE	ENSMUSG000000021798	-	chr14:35380584-35380753;chr 14:35384904-35385107;chr14: 35386176-35386198;chr14:353 91781-35391856;	chr14:35380584-35380753;chr14 :35390172-35390530;chr14:3539 1781-35391856;	ENSMUST00000064098	ENSMUST00000022330,ENSMUST00000022327,E NSMUST00000022328
MXE	ENSMUSG000000027620	-	chr2:156003072-156003121;ch r2:156003488-156003642;chr2 :156004913-156004976;	chr2:156003072-156003121;chr2 :156004616-156004688;chr2:156 004913-156004976;	ENSMUST00000154677	ENSMUST00000146549,ENSMUST00000155837,E NSMUST00000137566
MXE	ENSMUSG000000028464	-	chr4:43531274-43531336;chr4: 43531516-43531591;chr4:4353	chr4:43531274-43531336;chr4:4 3531875-43531950;chr4:4353209	ENSMUST00000107913	ENSMUST00000030184,ENSMUST00000107914



			2099-43532169;	9-43532169;		
MXE	ENSMUSG00000029767	+	chr6:29306471-29306697;chr6:29311294-29311487;chr6:29316040-29316206;	chr6:29306471-29306697;chr6:29311560-29311753;chr6:29316040-29316206;	ENSMUST00000031779	ENSMUST00000090481
MXE	ENSMUSG00000032294	+	chr9:59519728-59519880;chr9:59522836-59523002;chr9:59525851-59526032;	chr9:59519728-59519880;chr9:59523375-59523541;chr9:59525851-59526032;	ENSMUST00000163694	ENSMUST00000034834
MXE	ENSMUSG00000032366	-	chr9:66879259-66879321;chr9:66879758-66879833;chr9:66880601-66880671;	chr9:66879259-66879321;chr9:66880273-66880348;chr9:66880601-66880671;	ENSMUST00000113685,ENSMUST00000113686,ENSMUST00000113705,ENSMUST00000113690,ENSMUST00000030185,ENSMUST00000113695,ENSMUST00000113693,ENSMUST00000113687,ENSMUST00000034928,ENSMUST00000113707	ENSMUST00000113701,ENSMUST00000113689,ENSMUST00000113696,ENSMUST00000129733,ENSMUST00000050905,ENSMUST00000113684,ENSMUST00000139046,ENSMUST00000113697
MXE	ENSMUSG00000036452	+	chr18:39466356-39466506;chr18:39517207-39517317;chr18:39522771-39522862;	chr18:39466356-39466506;chr18:39517392-39517482;chr18:39522771-39522862;	ENSMUST00000155576	ENSMUST00000151757
MXE	ENSMUSG00000054252	+	chr5:34072793-34072983;chr5:34073930-34074080;chr5:34075371-34075561;	chr5:34072793-34072983;chr5:34074766-34074910;chr5:34075371-34075561;	ENSMUST00000114411	ENSMUST00000087820,ENSMUST00000067150,ENSMUST00000164207,ENSMUST00000169212
MXE	ENSMUSG00000061723	+	chr7:149698437-149698527;chr7:149699570-149699610;chr7:149701681-149701735;	chr7:149698437-149698527;chr7:149700231-149700271;chr7:149701681-149701735;	ENSMUST00000105947,ENSMUST00000105946,ENSMUST00000105941,ENSMUST00000105943,ENSMUST00000105948	ENSMUST00000105944,ENSMUST00000105945,ENSMUST00000105942
MXE	ENSMUSG00000061904	-	chr10:90582272-90582451;chr10:90584667-90584788;chr10:90586303-90586451;	chr10:90582272-90582451;chr10:90584952-90585076;chr10:90586303-90586451;	ENSMUST00000076694	ENSMUST00000170810
RI	ENSMUSG00000000740	+	chr8:125627798-125627854;chr8:125628944-125629144;	chr8:125627798-125629144;	ENSMUST00000000756	ENSMUST00000129311

RI	ENSMUSG00000001416	+	chr3:88124936-88125067;chr3: 88125366-88125429;	chr3:88124936-88125429;	ENSMUST00000167000	ENSMUST00000168062,ENSMUST00000167718
RI	ENSMUSG00000005481	+	chr8:86245633-86245751;chr8: 86246129-86246260;	chr8:86245633-86246260;	ENSMUST00000140521,ENSMUST00000172396, ENSMUST00000019576,ENSMUST00000109810, ENSMUST00000116451	ENSMUST00000127505
RI	ENSMUSG000000019822	-	chr10:41207478-41207631;chr 10:41207799-41207903;chr10: 41207983-41208115;chr10:412 08239-41208321;chr10:412085 40-41209157;	chr10:41207478-41209157;	ENSMUST00000141542	ENSMUST00000143470
RI	ENSMUSG000000019822	-	chr10:41207983-41208115;chr 10:41208239-41208321;chr10: 41208540-41208629;chr10:412 08737-41208830;chr10:412090 81-41209157;	chr10:41207983-41209157;	ENSMUST00000019965	ENSMUST00000126833
RI	ENSMUSG000000019822	-	chr10:41207478-41207631;chr 10:41207799-41207903;chr10: 41207983-41208115;chr10:412 08239-41208321;chr10:412085 40-41208629;chr10:41208737- 41208830;chr10:41209081-412 09157;	chr10:41207478-41209157;	ENSMUST00000019965	ENSMUST00000143470
RI	ENSMUSG000000023039	+	chr15:101244400-101244611;c hr15:101246652-101246712;	chr15:101244400-101246712;	ENSMUST00000068904,ENSMUST00000147662	ENSMUST00000131069
RI	ENSMUSG000000025512	-	chr7:148708508-148708600;ch r7:148712331-148712392;chr7	chr7:148708508-148713604;	ENSMUST00000026586,ENSMUST00000143561, ENSMUST00000153191,ENSMUST00000118694,	ENSMUST00000147610

			:148713498-148713604;		ENSMUST00000064642,ENSMUST00000166082	
RI	ENSMUSG00000027405	+	chr2:130102172-130102359;chr2:130102443-130102594;chr2:130102768-130102868;chr2:130103212-130103360;chr2:130103585-130103706;	chr2:130102172-130103706;	ENSMUST00000103198	ENSMUST00000161543
RI	ENSMUSG00000028180	+	chr3:157204664-157204833;chr3:157206122-157206208;	chr3:157204664-157206208;	ENSMUST00000029831,ENSMUST00000136928,ENSMUST00000106057,ENSMUST00000106058,ENSMUST00000106063	ENSMUST00000152882
RI	ENSMUSG00000028245	-	chr4:6345619-6345670;chr4:6347011-6347074;chr4:6347197-6347287;chr4:6348204-6348283;	chr4:6345619-6348283;	ENSMUST00000143566,ENSMUST00000164854,ENSMUST00000029910	ENSMUST00000156078
RI	ENSMUSG00000029017	+	chr5:21249197-21249276;chr5:21251796-21251908;	chr5:21249197-21251908;	ENSMUST00000030882	ENSMUST00000125693
RI	ENSMUSG00000030272	-	chr6:113288274-113288400;chr6:113289279-113289417;chr6:113289501-113289575;	chr6:113288274-113289575;	ENSMUST00000152736,ENSMUST00000155543,ENSMUST00000032409	ENSMUST00000156512
RI	ENSMUSG00000037266	+	chr4:134481208-134481347;chr4:134482650-134482733;	chr4:134481208-134482733;	ENSMUST00000078084	ENSMUST00000148900
RI	ENSMUSG00000042831	+	chr7:31097256-31097407;chr7:31097610-31097726;	chr7:31097256-31097726;	ENSMUST00000136887,ENSMUST00000060834	ENSMUST00000132193
RI	ENSMUSG00000047675	-	chr4:116827613-116827712;chr4:116828176-116828282;	chr4:116827613-116828282;	ENSMUST00000144051,ENSMUST00000102696	ENSMUST00000140226
RI	ENSMUSG00000053332	+	chr1:162966114-162966145;chr1:162966339-162966710;chr1	chr1:162966114-162967446;	ENSMUST00000160429	ENSMUST00000162163

			:162966951-162966983;chr1:162967419-162967446;			
RI	ENSMUSG00000053332	+	chr1:162965297-162965325;chr1:162965883-162965935;chr1:162966114-162966145;chr1:162966339-162966710;chr1:162966951-162966983;chr1:162967419-162967446;chr1:16296736-162967678;	chr1:162965297-162967678;	ENSMUST00000160429	ENSMUST00000161229
RI	ENSMUSG00000053332	+	chr1:162966114-162966145;chr1:162966339-162966375;	chr1:162966114-162966375;	ENSMUST00000166523,ENSMUST00000159119,ENSMUST00000159404,ENSMUST00000159663,ENSMUST00000159706,ENSMUST00000161005,ENSMUST00000162558,ENSMUST00000160152,ENSMUST00000162289,ENSMUST00000161380	ENSMUST00000159890
RI	ENSMUSG00000053332	+	chr1:162966114-162966145;chr1:162966339-162966375;chr1:162966680-162966710;chr1:162966951-162967295;chr1:162967419-162967446;	chr1:162966114-162967446;	ENSMUST00000161380	ENSMUST00000162163
RI	ENSMUSG00000053332	+	chr1:162966114-162966145;chr1:162966339-162966375;chr1:162966680-162966710;chr1:162966951-162966983;chr1:162967419-162967446;	chr1:162966114-162967446;	ENSMUST00000159706,ENSMUST00000162289	ENSMUST00000162163
RI	ENSMUSG00000053332	+	chr1:162966114-162966145;chr1:162966339-162966710;chr1:162966951-162966983;chr1:162967419-162967446;	chr1:162966114-162967446;	ENSMUST00000161461	ENSMUST00000162163

			:162966951-162966983;chr1:162967255-162967295;chr1:162967419-162967446;			
RI	ENSMUSG00000053332	+	chr1:162966114-162966145;chr1:162966339-162966375;chr1:162966680-162966710;chr1:162966951-162966983;chr1:162967255-162967295;chr1:162967419-162967446;	chr1:162966114-162967446;	ENSMUST00000166523,ENSMUST00000162558	ENSMUST00000162163
RI	ENSMUSG00000053332	+	chr1:162966114-162966145;chr1:162966339-162966375;chr1:162966680-162966710;chr1:162966951-162967446;	chr1:162966114-162967446;	ENSMUST00000160152	ENSMUST00000162163
RI	ENSMUSG00000053841	-	chr4:129308524-129308598;chr4:129308835-129308954;	chr4:129308524-129308954;	ENSMUST00000046425,ENSMUST00000084264	ENSMUST00000142577
RI	ENSMUSG00000058600	-	chr15:34370260-34370359;chr15:34370987-34371117;chr15:34372390-34372535;	chr15:34370260-34372535;	ENSMUST00000079735	ENSMUST00000135417
RI	ENSMUSG00000062647	+	chr2:26768191-26768321;chr2:26768508-26768577;	chr2:26768191-26768577;	ENSMUST00000164423,ENSMUST00000136269,ENSMUST00000143678,ENSMUST00000102898	ENSMUST00000137376
RI	ENSMUSG00000074578	+	chr2:166890659-166890717;chr2:166890934-166890980;	chr2:166890659-166890980;	ENSMUST00000125674	ENSMUST00000125841
RI	ENSMUSG00000089989	-	chr7:52387598-52387782;chr7:52389252-52389396;	chr7:52387598-52389396;	ENSMUST00000085377,ENSMUST00000123381,ENSMUST00000146760	ENSMUST00000134065

**Table S3. Differentially expressed genes after virus infection**

Gene	Symbol	Fold change (log2)			
		Jia6/10_CK_3d	Jia6/10_CK_5d	LN/09_CK_3d	LN/09_CK_5d
ENSMUSG00000037124	Trim58	-0.287609407	-11.74747583	-0.34178696	-10.77011053
ENSMUSG00000022491	Glycam1	-1.725805733	-8.925211425	-1.16014958	-2.89467053
ENSMUSG00000013418	B4galnt2	0	-8.541111762	0	-6.270642185
ENSMUSG00000027849	Syt6	0.250445924	-7.149621301	0.863308649	-6.8691291
ENSMUSG00000031710	Ucp1	-3.935005873	-5.785891572	-4.05872688	-4.778944169
ENSMUSG00000071858	Gm94	-1.616652737	-5.641462821	-1.12909513	-0.145774485
ENSMUSG00000074181	-	-2.527503658	-5.511725877	-0.33821478	-2.40824863
ENSMUSG00000035686	Thrsp	-4.31207046	-5.183824543	-1.88675443	-2.771907387
ENSMUSG00000054422	Fabp1	-4.011877336	-5.098340254	-2.2223221	-3.352501772
ENSMUSG00000074183	Gsta1	-1.304494639	-4.861825372	-0.51477285	-2.841397486
ENSMUSG00000051596	Otop1	-4.156303111	-4.815696392	-1.88702336	-3.830995188
ENSMUSG00000030244	Gys2	-4.282459659	-4.808567942	-2.62199835	-2.078017481
ENSMUSG00000038801	Scgb1c1	-3.095090755	-4.803550127	-0.64432479	-2.890455576
ENSMUSG00000032310	Cyp1a2	-5.29896692	-4.765926357	-1.58741554	-1.268584105
ENSMUSG00000006269	Atp6v1b1	-4.375064101	-4.625592231	-3.7986345	-4.197101509
ENSMUSG000000085128	-	-1.701344288	-4.619144536	-1.12261539	-2.353318346
ENSMUSG00000057933	Gsta2	-1.806272156	-4.58312763	-0.82279928	-2.989461072
ENSMUSG00000040972	Igsf21	-3.931074221	-4.569161785	-1.30677166	-4.630743906
ENSMUSG00000090887	-	-1.030146213	-4.568071311	-0.11711948	-0.801161987
ENSMUSG00000004892	Bcan	-4.01276648	-4.550782052	-0.73073278	-2.004256526
ENSMUSG00000084775	Gm16741	-0.251084016	-4.518376293	0.170736806	-3.881941296
ENSMUSG00000038791	Scgb3a2	-3.58688471	-4.463052449	-1.73472593	-2.701525263
ENSMUSG00000025431	Crisp1	-1.838165337	-4.424841669	-0.52649284	-0.14921212
ENSMUSG00000046748	2310005G13Rik	-0.874859651	-4.335078941	-0.25374021	-0.01411231
ENSMUSG00000071047	Ces1a	-2.460466911	-4.321584503	-2.05121957	-1.363323414
ENSMUSG00000078597	Cyp4a12b	-1.859550414	-4.296094011	-3.14615554	-0.976424375
ENSMUSG00000030664	1110006G14Rik	-1.292057699	-4.285122357	-0.95660243	-4.224647611
ENSMUSG00000020884	Asgr1	-1.650199316	-4.24422716	-3.92762599	-2.691957525
ENSMUSG00000069372	Ctxn3	-1.242812194	-4.068172583	-0.47941548	-0.796630676
ENSMUSG00000002588	Pon1	-3.681439203	-4.040733802	-1.56965842	-3.219034658
ENSMUSG00000064294	Aox3	-3.122357516	-4.037899906	-1.73869759	-2.488221117
ENSMUSG00000056078	Lipm	-0.972327417	-3.988977501	0.107771333	0.052451321
ENSMUSG00000059201	Lep	-3.581793438	-3.969446307	-2.44511027	-3.673882179
ENSMUSG00000074179	Gm10639	-1.762113128	-3.968477433	-0.33820426	-4.324866012
ENSMUSG00000043687	1190005I06Rik	-1.696441172	-3.914352676	-0.89740451	-3.120471422
ENSMUSG00000026621	Mosc1	-5.624312213	-3.884002981	-1.55190972	-1.927112346
ENSMUSG00000019102	Aldh3a1	-1.635253817	-3.880457484	-0.64789018	-0.237811965
ENSMUSG00000083425	Gm13992	0	-3.873939908	0.576233812	-3.840421214
ENSMUSG00000005547	Cyp2a5	-2.506710308	-3.861859284	-2.0700418	-2.08694177
ENSMUSG00000042031	Lce3b	-1.257312267	-3.853934278	-0.52301599	-0.024588744
ENSMUSG00000024653	Scgb1a1	-1.356121991	-3.825662217	0	-1.356121991
ENSMUSG00000026459	Myog	-1.204737501	-3.824062377	-1.24965827	-1.072535877
ENSMUSG00000059898	Dsc3	-0.636423312	-3.821188964	-0.36587298	0.284113948

ENSMUSG00000031844	Hsd17b2	-0.997114387	-3.7852752	-1.56284863	-1.646201588
ENSMUSG00000091971	Hspa1a	-0.465321464	-3.784270251	0.915002906	-0.983517056
ENSMUSG00000090877	Hspa1b	-0.458449487	-3.777538078	0.939686837	-0.954163148
ENSMUSG00000066071	Cyp4a12a	-1.925838046	-3.773240516	-3.35354714	-0.817399613
ENSMUSG00000026691	Fmo3	-3.441648297	-3.770566484	-2.29213101	-2.933906739
ENSMUSG00000032315	Cyp1a1	-4.349778503	-3.760697744	-0.94217974	-3.658408098
ENSMUSG00000030302	Atp2b2	-2.876898195	-3.75711125	-0.76818735	-2.6270256
ENSMUSG00000044338	Aplnr	-2.345253621	-3.752106512	-1.07095022	-1.898894904
ENSMUSG00000060343	Calm5	-1.270802485	-3.74682105	-0.35215716	-1.105837089
ENSMUSG00000064057	Scgb3a1	-3.5724546	-3.745681812	-3.73775707	-3.018695922
ENSMUSG0000004885	Crabp2	-1.168154902	-3.741174004	-0.111364	0.603110507
ENSMUSG00000027401	Tgm3	-1.464167292	-3.725474914	-0.55712839	0.019504019
ENSMUSG00000041984	Rptn	-1.561773619	-3.703779046	-0.68303585	0.071779817
ENSMUSG00000048455	Sprr1b	-0.112747322	-3.695978094	0.480417344	-0.220758478
ENSMUSG00000045475	Lce3c	-1.215164224	-3.694956628	-0.29506249	0.0622306
ENSMUSG00000033765	Calm4	-1.537931224	-3.694402807	-0.82425621	-0.199465685
ENSMUSG00000027923	Lce1b	-1.584566389	-3.694208477	-0.2062237	-0.173804439
ENSMUSG00000054325	Lce3a	-1.143867138	-3.694158418	-0.38400203	-0.11125737
ENSMUSG00000005355	Casp14	-0.899580479	-3.682707505	-0.40602388	-0.42335282
ENSMUSG00000092004	Gm17482	-2.063941207	-3.679164783	0.055265694	-2.648323535
ENSMUSG00000018776	Amac1	-0.805913872	-3.650263385	-0.97796314	-1.847383232
ENSMUSG00000068885	Lce3f	-1.200717759	-3.638119229	-0.21477806	0.056741983
ENSMUSG00000043681	Fam25c	-1.262836111	-3.618880113	-0.18552443	0.069934405
ENSMUSG00000083314	Gm11742	1.813882917	-3.615226169	1.064235552	-1.026420052
ENSMUSG00000074254	Cyp2a4	-2.412635966	-3.602417259	-2.09843936	-1.943783289
ENSMUSG00000043122	A530016L24Rik	-4.380698941	-3.591051371	-2.03559788	-2.250707903
ENSMUSG00000033208	S100b	-1.153128794	-3.583433032	-0.64950083	-1.031221802
ENSMUSG00000020052	Ascl1	-2.137131672	-3.568973722	-1.86466127	-3.534600353
ENSMUSG00000052974	Cyp2f2	-3.085517184	-3.560505987	-1.60312815	-2.309642445
ENSMUSG00000026304	Rab17	-3.160006035	-3.542404686	-3.88454843	-1.977100206
ENSMUSG00000001494	Sost	-3.100006624	-3.53064087	-3.24980028	-3.201821764
ENSMUSG00000026983	Il1f5	-1.062509491	-3.516340294	-0.74437554	-0.119665658
ENSMUSG00000034774	Dsg1c	-0.82226572	-3.505459344	-0.55886161	0.317824933
ENSMUSG00000027483	Bpifa1	-3.108980108	-3.500078188	-3.68336966	-2.917877026
ENSMUSG00000082969	Gm12630	0.803429995	-3.495021172	0.444179432	-1.908421148
ENSMUSG00000059668	Krt4	-1.381051368	-3.49060403	-0.36291652	0
ENSMUSG00000063651	Cnfn	-1.098443612	-3.483928025	0.111771193	0.126255392
ENSMUSG00000031757	Mt4	-1.667515933	-3.471093876	-0.3359134	0.048902613
ENSMUSG00000037973	Ccdc129	-3.284984527	-3.449271546	-1.73573947	-2.304745404
ENSMUSG00000041523	Upk2	-4.324261761	-3.447962121	-0.96102161	-2.42192604
ENSMUSG00000083618	Gm11771	-2.332398698	-3.444961554	-1.17994004	-1.957511641
ENSMUSG00000046095	Krt32	-0.96913284	-3.412103415	-0.63538834	1.037098632
ENSMUSG00000083826	Gm13039	1.033348144	-3.410075193	-1.48456869	-2.426474022
ENSMUSG00000061397	Krt79	-1.298730578	-3.405808317	-0.24973604	-1.827237891
ENSMUSG00000027559	Car3	-3.187778995	-3.399938537	-1.72881622	-2.432295039
ENSMUSG00000059956	Serpib12	-1.370140366	-3.39442296	-0.60001265	-0.100347868
ENSMUSG00000031494	Cd209a	-2.533592867	-3.390472583	-1.36272269	-0.014025339
ENSMUSG00000054013	Tmem179	-4.307105302	-3.383465904	-1.60289517	-1.922931965

ENSMUSG00000067063	Gm6990	-3.343753095	-3.375289392	-2.80434531	-1.344121242
ENSMUSG00000074433	2310001H18Rik	-1.147151196	-3.366534198	-0.43284931	0.203723372
ENSMUSG00000083991	Gm11618	-1.398876859	-3.360844488	-1.48238278	-1.021159739
ENSMUSG00000051906	Cd209f	-2.201783669	-3.3486846	-0.63895842	-1.143826937
ENSMUSG00000090944	-	-0.405999992	-3.336779514	1.387036282	-0.563168642
ENSMUSG00000061959	Ces1e	-1.926561277	-3.336594081	-1.64808534	-2.317632004
ENSMUSG00000073415	Gm10501	-0.505191959	-3.32969745	0.734292714	-0.92461189
ENSMUSG00000074156	Ces1h	-1.388135004	-3.32555803	-0.69999245	0.097449524
ENSMUSG00000043472	Gm9782	-1.145810653	-3.324569694	0.036003728	0.23409711
ENSMUSG00000041991	Hnr	-1.542398645	-3.317517261	-0.89376184	0.165240264
ENSMUSG00000045539	Spr3	-1.182551128	-3.312753193	-0.17568293	0.116234856
ENSMUSG00000007033	Hspa11	-0.50373007	-3.28803962	0.734760687	-0.919355168
ENSMUSG00000049598	Vsig8	-0.939428061	-3.267240186	0.208376828	-0.019099501
ENSMUSG00000059412	Fxyd2	-3.882020324	-3.264612119	-0.70652631	-4.208168062
ENSMUSG00000059741	Myl3	-1.512152876	-3.248249232	-0.59131441	-2.216213026
ENSMUSG00000037071	Scd1	-2.729739224	-3.24502215	-1.00961272	-1.545972146
ENSMUSG00000023019	Gpd1	-2.549663111	-3.243905127	-1.58373517	-2.416829753
ENSMUSG00000057609	Lce1a1	-1.39015391	-3.226352415	-0.2912742	-0.177441425
ENSMUSG00000074199	Krtdap	-0.934821105	-3.219442292	-0.15241209	-0.041214925
ENSMUSG00000040165	Cd209c	-1.987225333	-3.200835203	0.211513018	-1.763312701
ENSMUSG00000034783	Cd207	-3.350482264	-3.199567142	-1.42208112	-2.049392205
ENSMUSG00000091712	Sec14l5	-2.781485191	-3.196150848	-0.70009041	-1.186913342
ENSMUSG00000027913	Crc1	-1.318275717	-3.185047117	-0.48658813	0.060440347
ENSMUSG00000078658	Lce1d	-1.546927384	-3.182415058	-0.18041597	-0.206297501
ENSMUSG00000039114	Nrn1	-1.752420912	-3.178573712	-0.74517784	-1.764013699
ENSMUSG00000056978	Hamp2	-3.278085982	-3.167396732	-1.70380438	-4.689041914
ENSMUSG00000092070	-	-0.487940765	-3.167178999	-1.94979589	-0.355450592
ENSMUSG00000044041	Krt13	-1.338423222	-3.164780285	-0.49150134	0.038848944
ENSMUSG00000041616	Nppa	-2.950786525	-3.162968159	-0.92296643	-1.422233137
ENSMUSG00000023011	Faim2	-1.906173426	-3.162958305	-0.37421754	-2.023769466
ENSMUSG00000022996	Wnt10b	-2.591080141	-3.162776597	-0.73092113	-1.685039503
ENSMUSG00000017697	Ada	-1.114818104	-3.159913154	-0.44660796	0.00823615
ENSMUSG00000036655	Colec11	-1.488498906	-3.137068376	-0.63714143	-1.339054627
ENSMUSG00000090356	2310042E22Rik	-1.077756784	-3.134317717	-0.53791841	0.191997396
ENSMUSG00000040127	Sdr9c7	-0.765522874	-3.124025753	-0.705244	-0.251363106
ENSMUSG00000043165	Lor	-0.867906944	-3.110733164	0.348382467	-0.251824138
ENSMUSG00000059832	Kprp	-1.051039979	-3.104216234	0.033411709	-0.022098316
ENSMUSG00000032807	Alox12b	-1.121426891	-3.099602728	-0.24865716	0.296834369
ENSMUSG00000031881	Cdh16	-2.229218102	-3.090538235	-0.39918244	-1.169927941
ENSMUSG00000000889	Dbh	-0.064690158	-3.086592068	-1.24671019	-3.729665848
ENSMUSG00000087183	-	-3.640989038	-3.079523666	-2.77627981	-5.031739318
ENSMUSG00000072473	1700024G13Rik	-2.236383341	-3.074467257	-1.33837666	-1.781396653
ENSMUSG00000057606	Colq	-2.498857691	-3.06251364	-0.85201588	-1.428266454
ENSMUSG00000078100	-	-0.852210445	-3.049790523	-0.61149775	-0.048891199
ENSMUSG00000042379	Esm1	-2.426180843	-3.039490294	-1.58148206	-2.106877244
ENSMUSG00000020096	Tbata	-2.647236213	-3.035917801	-1.97169771	-3.373644638
ENSMUSG00000075605	2300005B03Rik	-1.315710456	-3.027124788	-1.02239013	-0.337714315
ENSMUSG00000058022	Adtrp	-0.749293505	-3.025260263	-0.52108366	-1.072384293



ENSMUSG00000068887	Lce1j	-1.680328118	-3.022790611	-0.80880021	0.558043107
ENSMUSG00000028427	Aqp7	-2.485741039	-3.014794643	-1.76994719	-3.156115188
ENSMUSG00000030747	Dgat2	-2.396507224	-3.008877589	-1.43695543	-1.791404389
ENSMUSG00000055775	Myh8	-1.365164461	-3.005084802	-0.600074	-0.487168192
ENSMUSG00000068890	Lce1a2	-1.344436995	-2.989126704	-0.11249264	0.277198058
ENSMUSG00000051431	Gpr87	-0.819690131	-2.981576885	-0.91485282	0.026285576
ENSMUSG00000086678	-	-0.7170269	-2.969399578	-0.11842961	-0.058506765
ENSMUSG00000040808	S100g	-3.103804105	-2.965542636	-1.1676512	-2.795878473
ENSMUSG00000042200	Cdrt4	0.150412836	-2.961263998	-0.84052126	-2.920237241
ENSMUSG00000025175	Fn3k	-1.781374219	-2.949655564	-1.30639318	-1.72939531
ENSMUSG00000083216	Hbb-bh3	-2.825829594	-2.943049502	-0.7105822	-1.286008228
ENSMUSG00000064225	Paqr9	-4.269405584	-2.940491634	-1.63169302	-3.024883865
ENSMUSG00000059631	1500035N22Rik	-1.021159883	-2.939511828	-0.96276756	-1.865867995
ENSMUSG00000079355	Ccr11	-2.470282241	-2.939151354	-1.37537862	-3.999408967
ENSMUSG00000079602	9230102O04Rik	0.153390299	-2.938114834	0.650816936	-1.569383248
ENSMUSG00000069441	Dsg1a	-0.955758317	-2.928236729	-0.40004713	0.342450165
ENSMUSG00000050463	Krt78	-1.298443795	-2.923107711	-0.38367479	0.011247337
ENSMUSG00000062515	Fabp4	-3.014030186	-2.917999322	-1.54305698	-2.679302633
ENSMUSG00000072800	-	-1.80584914	-2.913805987	-0.81957729	-1.231038912
ENSMUSG00000029695	Aass	-1.907159469	-2.906619684	-1.03048052	-1.8006868
ENSMUSG00000083967	Gm15115	-2.814174113	-2.906450922	-0.68534731	-1.251774191
ENSMUSG00000030554	Synm	-1.805021676	-2.897312052	-0.74194583	-1.631156252
ENSMUSG00000027912	Lce1m	-1.5778703	-2.89580252	-0.44211911	0.430132437
ENSMUSG00000059230	Defb4	-1.334901128	-2.892878246	-0.2293512	-0.366455116
ENSMUSG00000068889	Lce1e	-2.015292146	-2.892832166	-0.46521717	-0.321029828
ENSMUSG00000036731	2310002J15Rik	-1.291742654	-2.885392153	-0.33270408	-0.270541877
ENSMUSG00000040412	5330417C22Rik	-2.095605399	-2.882782719	-1.07015222	-1.735923659
ENSMUSG00000046676	Lce1l	-1.381162727	-2.875275542	-0.61758109	-0.33166483
ENSMUSG00000025783	4930412O13Rik	0.036257015	-2.875191155	1.404809798	-0.914236138
ENSMUSG00000063130	Calml3	-1.274754791	-2.864733723	-0.70290156	0.128016296
ENSMUSG00000068323	Slc4a5	-2.137721784	-2.861339611	-0.60456093	-1.548441837
ENSMUSG00000062778	Chia	-2.125660737	-2.855748254	-0.84610823	-1.69959537
ENSMUSG00000029361	Nos1	-1.257717086	-2.855451561	-0.43635041	-0.526258137
ENSMUSG00000059824	Dbp	-0.460951976	-2.848961564	-0.71829346	-0.92980356
ENSMUSG00000075425	Gm13547	-1.017634992	-2.843710054	-0.14602059	-0.647129617
ENSMUSG00000082364	Gm11955	-1.856536396	-2.84164755	-0.46379943	0.159298617
ENSMUSG00000005705	Agrp	-0.982472232	-2.836718906	-0.130412	-0.821866219
ENSMUSG00000025153	Fasn	-2.349743313	-2.834273765	-0.91881363	-1.576330436
ENSMUSG00000089932	Gm16114	0.596217894	-2.831586836	1.735739995	-1.659294383
ENSMUSG00000074218	Cox7a1	-3.31215037	-2.831354167	-1.70644668	-1.552908692
ENSMUSG00000075217	4833423E24Rik	-0.70810695	-2.826961948	-0.90261344	0.39735255
ENSMUSG00000047586	Nccrpl	-0.36423282	-2.801256785	0.318956938	0.28611728
ENSMUSG00000015354	Pcolce2	-1.998805859	-2.800976493	-0.57362876	-3.336385011
ENSMUSG00000024028	Tff2	-1.146406992	-2.795325163	-1.5542234	-1.963949164
ENSMUSG00000037577	Ephx3	-0.342841979	-2.789514691	-0.10571939	-0.066535414
ENSMUSG00000039070	Cpa4	-1.027064927	-2.786456331	-0.27552812	0.408834129
ENSMUSG00000080907	4930455H04Rik	0.314047135	-2.780881679	-0.14002006	-1.499961742
ENSMUSG00000060579	Fhit	-1.338146265	-2.755772766	-1.03925983	-0.763401171

ENSMUSG00000025150	Cbr2	-2.449720239	-2.746890743	-1.04463071	-1.436956464
ENSMUSG00000024027	Glp1r	-2.588938182	-2.7458861	-1.56922363	-2.026244689
ENSMUSG00000044594	Serpib3a	-1.264364334	-2.742291566	-0.59121724	-0.156000382
ENSMUSG00000024039	Cbs	-1.339106582	-2.739119198	-1.38702481	-1.892079397
ENSMUSG00000046814	Gchfr	-2.127481872	-2.733877979	-0.85432336	-2.140024376
ENSMUSG00000084893	Hba-ps4	-2.372332947	-2.726527589	-0.56680775	-0.816689721
ENSMUSG00000039269	2300002M23Rik	-0.697751545	-2.724515227	-0.08950195	0.493725557
ENSMUSG00000064018	-	-1.356312866	-2.718038597	-0.47951027	-0.895518269
ENSMUSG00000048004	Tmem196	-1.439366876	-2.711459177	-2.92822021	-0.712602395
ENSMUSG00000060621	Nkpd1	-1.162734935	-2.707124274	-0.02812694	0.532387862
ENSMUSG00000019894	Slc6a15	-3.900624453	-2.704492564	-1.55432043	-3.079893841
ENSMUSG00000044086	Lmod3	-2.002590348	-2.70380087	-1.68180134	-0.085034151
ENSMUSG00000042124	Lce1f	-1.748353458	-2.69825867	-0.3398401	-0.112785042
ENSMUSG00000053522	Lgals7	-1.457462799	-2.69232351	-0.1266986	0.015366856
ENSMUSG00000042092	Lce1c	-1.657822193	-2.688853909	-0.30757775	-0.245632596
ENSMUSG00000027796	Smad9	-2.284870382	-2.688092503	-1.11372961	-1.804355462
ENSMUSG00000031780	Ccl17	-0.399070947	-2.686671837	0.316721953	-0.517285591
ENSMUSG00000038572	Bpifb5	-1.756646443	-2.683296859	0.100276555	-1.665308227
ENSMUSG00000080729	Gm8084	-1.349893282	-2.67789476	-0.85644004	-0.73771086
ENSMUSG00000033508	Asprv1	-1.185890397	-2.67631733	-0.42629723	-0.046376373
ENSMUSG00000073602	Serpib3b	-1.143965058	-2.666909681	-0.22999766	-0.596482145
ENSMUSG00000079168	Cd209g	-3.405378752	-2.665052794	-0.29600113	-0.442141164
ENSMUSG00000045776	Lrtm1	-2.102562299	-2.661795966	-0.72007203	-0.940725476
ENSMUSG00000040488	Ltbp4	-1.795805152	-2.661538853	-0.25675818	-1.374640395
ENSMUSG00000044322	Dsc1	-1.002772838	-2.648522328	-0.60981763	0.339600483
ENSMUSG00000023461	-	-1.08854862	-2.647795902	-0.34714067	-1.988555512
ENSMUSG00000027380	Acox1	-1.792915879	-2.646342876	-0.67705155	-1.155389177
ENSMUSG00000036523	Greb1	-0.938883816	-2.645712026	-0.18145971	-1.607964119
ENSMUSG00000054196	Cthrc1	-0.203576831	-2.642832025	-0.63523283	-1.223754487
ENSMUSG00000022496	Tnfrsf17	-1.546264904	-2.631889264	-1.63524126	-1.257842863
ENSMUSG00000084038	Gm11295	-2.040046694	-2.627783565	-1.72501435	-0.987585132
ENSMUSG00000018566	Slc2a4	-3.191984815	-2.621951607	-1.77998928	-1.34164671
ENSMUSG00000080993	Gm12903	0.655190054	-2.621023282	1.20448661	-1.007306057
ENSMUSG00000055609	Hba-x	-2.484183399	-2.620630793	-0.2495955	-0.922784512
ENSMUSG00000078898	Gm4723	-1.233275223	-2.607374156	0.19596124	-0.161183215
ENSMUSG00000026874	Hc	-1.821603755	-2.602363641	-0.36144446	-0.89064147
ENSMUSG00000024500	Ppp2r2b	-2.095783724	-2.593850345	-0.6556492	-1.1612302
ENSMUSG00000029499	Pxmp2	-1.973071055	-2.593778096	-1.27323432	-1.657359857
ENSMUSG00000011632	Pinlyp	-0.712544074	-2.592651043	-0.55033711	0.827393011
ENSMUSG00000085700	Hbb-bh0	-4.246035584	-2.58663986	-1.51476696	-0.847543451
ENSMUSG00000013091	Tmem190	-0.810951402	-2.585397407	-0.93816077	0.204251605
ENSMUSG00000034768	Asb16	-1.654020685	-2.584671853	-0.822272	-0.896279627
ENSMUSG00000047182	Irs3	-1.661431662	-2.583226911	-0.91400797	-1.317714919
ENSMUSG00000020427	Igfbp3	-2.638265553	-2.578570451	-1.12895308	-2.443322992
ENSMUSG00000024990	Rbp4	-2.135867901	-2.565287316	-0.96467836	-1.955210745
ENSMUSG00000005373	Mlxipl	-3.119974045	-2.561693783	-1.08781234	-1.419401895
ENSMUSG00000047884	Klk9	-0.545458968	-2.559364974	0.421529496	0.067280169
ENSMUSG00000057074	Ces1g	-1.972059289	-2.557949897	-1.18164831	-1.812288196

ENSMUSG00000015852	Fcrfs	-2.54879017	-2.557492706	-0.63696458	-1.412185897
ENSMUSG00000020722	Cacng1	-0.593090988	-2.545586415	-0.34774715	-0.03513304
ENSMUSG00000031927	1700012B09Rik	-0.410441075	-2.535729202	-0.09761098	-3.068033045
ENSMUSG00000043496	Tril	-1.866452594	-2.529823366	-0.96554003	-2.233890355
ENSMUSG00000031489	Adrb3	-2.49725605	-2.524448127	-1.02214028	-2.481116664
ENSMUSG00000068492	-	-0.767412382	-2.523309085	-0.21172871	-0.299489559
ENSMUSG00000032262	Elov14	-1.045660416	-2.516441412	-0.1629635	-1.389496421
ENSMUSG00000024534	Sncaip	-0.658398771	-2.510160764	-1.0686186	-1.404460099
ENSMUSG00000053214	Gm9899	-0.599143521	-2.510088141	-0.28657387	-1.67879974
ENSMUSG00000028148	Them5	-0.682955292	-2.509519541	-0.3226357	0.104109708
ENSMUSG00000012187	Mogat1	-2.207050654	-2.500209074	-1.65999099	-3.363281127
ENSMUSG00000078447	-	0.113074212	-2.499092348	0.245062698	-2.032964622
ENSMUSG00000071470	Ccnb1ip1	-0.148375135	-2.497890377	-0.80576022	1.864444935
ENSMUSG00000058135	Gstm1	-1.968422448	-2.496228351	-0.71399658	-1.846987809
ENSMUSG00000017914	BC034902	-2.276975125	-2.49424976	-2.22500378	-1.553226738
ENSMUSG00000035486	Plk5	-2.927301808	-2.493541066	-1.38119649	-1.333032281
ENSMUSG00000082160	Gm11578	0.453674173	-2.49286664	-0.92748844	-3.441874479
ENSMUSG00000026413	Pkp1	-1.189573255	-2.488161748	-0.37462595	-0.000416927
ENSMUSG00000021055	Esr2	-0.916045637	-2.487982692	-0.19964799	-1.432705595
ENSMUSG00000033578	Tmem35	-1.692276935	-2.487651823	-1.27980722	-3.78108067
ENSMUSG00000090826	-	-1.245974831	-2.486391829	-0.54156132	-2.382636649
ENSMUSG00000027224	Duoxa1	-0.633203358	-2.485909619	-0.4555273	0.008181154
ENSMUSG00000045036	Tmem232	-0.934911799	-2.484233718	-0.94301522	-0.935752885
ENSMUSG00000046056	Sbsn	-1.264025872	-2.480981865	-0.25810398	-0.218673307
ENSMUSG00000061928	Dsg1b	-0.888304924	-2.480642748	-0.20248098	0.341348565
ENSMUSG00000028996	Rbp7	-3.251554117	-2.479081334	-0.86801216	-1.607949904
ENSMUSG00000055561	Spink5	-0.972803814	-2.477057106	-0.58033183	0.251404518
ENSMUSG00000022759	4930451C15Rik	-2.195934448	-2.475273444	-1.44978772	-1.701382809
ENSMUSG00000090870	-	-1.685162448	-2.47170044	-1.62986558	-2.413120072
ENSMUSG00000067006	Serpinb5	-1.175902438	-2.459216636	-0.13226613	0.29096961
ENSMUSG00000090309	-	-0.037500796	-2.458058536	-0.44269211	-2.090276803
ENSMUSG00000044359	P2ry4	-0.944338663	-2.455815373	-0.68185006	-2.089369352
ENSMUSG00000078866	Gm14420	-0.021229997	-2.455723039	1.124143875	-0.712282359
ENSMUSG00000020123	Avpr1a	-2.246179307	-2.455223115	-1.8137647	-0.510208699
ENSMUSG00000050762	Prss27	-1.447734889	-2.45488959	-0.6588488	-0.123124284
ENSMUSG00000091089	A930018M24Rik	-1.937118965	-2.450835714	-0.79256402	-0.926186588
ENSMUSG00000038065	2410066E13Rik	-2.399901386	-2.450022786	-0.74439822	-1.749105362
ENSMUSG00000030546	Plin1	-2.864857459	-2.44894064	-1.65860168	-2.229379427
ENSMUSG00000030433	Sbk2	-1.574098911	-2.4452926	-0.7646723	-0.540298453
ENSMUSG00000044405	Adig	-2.463379963	-2.435540395	-1.90316036	-1.904162218
ENSMUSG00000079434	Neu2	-1.424067619	-2.430346933	-0.78178071	-0.826251487
ENSMUSG00000024526	Cidea	-1.997412456	-2.427904833	-1.55622846	-2.397960794
ENSMUSG00000084189	Gm8089	-1.531450704	-2.420275218	-0.62629586	-0.325994887
ENSMUSG00000049593	Lce1h	-1.612562487	-2.41999751	-0.55579443	0.086119719
ENSMUSG00000041559	Fmod	-2.201909686	-2.415812589	-0.94003933	-1.021698342
ENSMUSG00000033327	Tnxb	-1.108698932	-2.412462953	0.013307801	-1.244219102
ENSMUSG00000067879	3110035E14Rik	-0.256635705	-2.409428119	0.714749582	-1.507078324
ENSMUSG00000026327	Serpinb11	-0.805961263	-2.408759116	-0.33854215	-0.043881937

ENSMUSG00000031725	Ces1f	-2.064371505	-2.407273214	-1.62749973	-2.40645963
ENSMUSG00000086213	A330040F15Rik	-0.532598651	-2.406193594	-0.76899576	-3.895233221
ENSMUSG00000050195	Scd4	-2.300890361	-2.40491746	-0.9680574	-1.134278298
ENSMUSG00000006457	Actn3	-1.45926618	-2.39888805	-1.16192006	-0.353123112
ENSMUSG00000090221	-	-1.085599534	-2.395688607	0.495408439	-0.225528945
ENSMUSG00000022878	Adipoq	-2.743536058	-2.384403931	-1.6552115	-2.427749905
ENSMUSG00000039518	Cdsn	-0.788585931	-2.383135398	-0.09399489	0.19251761
ENSMUSG00000023046	Igfbp6	-1.989701973	-2.381273012	-0.61620767	-1.731083698
ENSMUSG00000060899	Rpl21-ps11	-5.475643255	-2.38120773	-5.94243391	-2.799313366
ENSMUSG00000019326	Aoc3	-1.791570269	-2.380710458	-1.07531988	-1.668569157
ENSMUSG00000075402	Krt76	-1.654247976	-2.379855094	-1.03789742	0.156458892
ENSMUSG00000083771	Gm15988	0.558531097	-2.378388432	1.453674475	-1.17635469
ENSMUSG00000025488	Cox8b	-2.893886428	-2.378154574	-1.83903231	-1.815601582
ENSMUSG00000089756	Gm8898	-1.196115783	-2.377870731	0.353482701	-0.162285313
ENSMUSG00000049357	4933408B17Rik	-0.632131141	-2.376435858	0.670217803	-1.131127586
ENSMUSG00000037686	Aspg	-1.785602576	-2.374905058	-0.64408564	-1.513667955
ENSMUSG00000062826	Ces2f	-1.009339117	-2.371595679	0.150026902	0.032410112
ENSMUSG00000078621	Hbb-bh2	-3.309112874	-2.371191627	-1.45921548	-1.062549288
ENSMUSG00000074491	Clec4g	-0.91840995	-2.370742364	-0.96379914	-1.028090214
ENSMUSG00000053957	Gm12474	-1.343822569	-2.364969072	-0.86097224	-3.109754276
ENSMUSG00000030048	Gkn3	-1.568761783	-2.363386975	-1.44105656	-1.683676401
ENSMUSG00000037624	Kcnk2	-1.391282075	-2.35803103	-0.64436185	-1.526661138
ENSMUSG00000038457	Fam70b	-2.536702443	-2.356962036	-0.98773119	-0.707689047
ENSMUSG00000073063	Hbq1b	-2.625736764	-2.355339361	-0.1063993	-0.837424977
ENSMUSG00000017204	Gsdma	-0.935783736	-2.355186447	-0.21817971	0.246288051
ENSMUSG00000073672	Rnf223	-0.615335327	-2.354299766	0.109571475	0.424467897
ENSMUSG00000079993	Gm11799	-2.153112312	-2.353915554	-0.36543561	-1.162393885
ENSMUSG00000028573	Fggy	0.310084408	-2.353696705	-0.63754875	-1.643539028
ENSMUSG00000020524	Gria1	-2.057663978	-2.349663579	-0.6791153	-2.075369462
ENSMUSG00000084129	Hmgb1-ps1	1.300252241	-2.347884638	0.069529192	-1.306137365
ENSMUSG00000020183	Cpm	-1.843123668	-2.343622399	-1.11651646	-1.476074389
ENSMUSG00000087272	Gm15409	-2.325551852	-2.34215891	-0.18263508	-0.739606041
ENSMUSG00000082795	Gm13193	0.987155275	-2.341546023	-1.97372347	-1.330592262
ENSMUSG00000025202	Scd3	-2.263442883	-2.340976928	-0.96490689	-1.18212911
ENSMUSG00000052217	Hbb-bh1	-3.2804261	-2.337778258	-1.43155208	-1.041032774
ENSMUSG00000074264	Amy1	-2.114828147	-2.33644353	-1.66405718	-1.647901795
ENSMUSG00000030972	Acsm5	-4.650402803	-2.333849978	-2.29292242	-2.287086637
ENSMUSG00000027513	Pck1	-2.08308577	-2.332370078	-1.68371556	-3.191971378
ENSMUSG00000041220	Elov16	-2.610051405	-2.332323003	-1.51962261	-1.203971685
ENSMUSG00000055632	Hmcn2	-1.918381761	-2.331323847	-0.57606916	-0.425475406
ENSMUSG00000048142	Nat8l	-2.439853206	-2.327243891	-1.15652855	-2.005529651
ENSMUSG00000033615	Cplx1	0.303079491	-2.322518966	-0.10396982	-0.867457633
ENSMUSG00000054850	Ncrna00086	-1.722781723	-2.321756854	-0.57275618	-2.51217222
ENSMUSG00000090903	-	-0.934393458	-2.320333075	-1.67681404	-1.98849123
ENSMUSG00000057454	Lypd3	-0.958923219	-2.317067694	-0.38097876	-0.038308037
ENSMUSG00000020623	Map2k6	-1.465066964	-2.316174417	-1.13864921	-1.147044745
ENSMUSG00000068083	Cyp2d40	0.825298456	-2.314979937	0.568118137	-0.501422296
ENSMUSG00000045238	A730035I17Rik	-1.151911339	-2.314868433	-0.40905901	-2.896208044

ENSMUSG00000014846	Tppp3	-2.091356283	-2.311765767	-0.99002256	-1.405423607
ENSMUSG00000061527	Krt5	-1.590965405	-2.306710955	0.029481734	-0.039715033
ENSMUSG00000090879	-	-0.242123178	-2.304735565	1.107766	-1.299731274
ENSMUSG00000023013	Aqp2	-0.031087095	-2.303975733	0.76274601	-1.622824423
ENSMUSG00000015405	Ace2	-1.087094103	-2.30102456	-0.56171483	-2.364889817
ENSMUSG00000049173	Myoz3	-2.628603375	-2.29855611	-0.19657681	0.441748562
ENSMUSG00000050296	Abca12	-0.847031687	-2.296650252	-0.43364784	-0.163115921
ENSMUSG00000032649	Glt25d2	-1.776433859	-2.288892467	-0.78152901	-1.636937805
ENSMUSG00000086389	Gm15998	-1.049992573	-2.288214413	-0.14329049	-0.364303032
ENSMUSG00000003949	Hlf	-0.764736408	-2.283277411	-0.50084922	-1.457016648
ENSMUSG00000020251	Glt8d2	-0.729348924	-2.281632867	-0.25886979	-2.023492475
ENSMUSG00000032908	Sgpp2	-1.217582713	-2.273689079	-0.13748918	-0.796018333
ENSMUSG00000071551	Akr1c19	-0.491461163	-2.27284327	-0.79914554	-1.164218772
ENSMUSG00000038216	Pnmt	0.728028235	-2.271205562	-1.06277782	-0.823548253
ENSMUSG00000044951	Mylk4	-2.24404538	-2.269451061	-1.03337229	-0.531041519
ENSMUSG00000047797	Gjb1	-1.113057415	-2.268284335	-0.14213036	-1.880587844
ENSMUSG00000021573	Tppp	-2.414073265	-2.263372832	-1.06501396	-1.674968844
ENSMUSG00000020532	Acaca	-2.364435982	-2.257085408	-1.22981154	-1.599733191
ENSMUSG00000031204	Asb12	-1.273837939	-2.255726347	-1.18735781	-0.704176728
ENSMUSG00000037129	Tmprss13	-0.89250946	-2.255722096	-0.25248905	-1.545947909
ENSMUSG00000082152	Gm13655	0.187313046	-2.254970074	-6.83258569	-2.207453862
ENSMUSG00000002769	Gnmt	-3.297479478	-2.253109407	-0.64555324	-1.516431529
ENSMUSG00000068522	Aard	-1.2315018	-2.252215898	-0.26486132	-1.542005579
ENSMUSG00000051456	Hspb3	-1.926227195	-2.249249683	-3.81007535	0.026739441
ENSMUSG00000072966	Gprasp2	-1.012490006	-2.249064648	-0.07569496	-2.424417724
ENSMUSG00000030865	2010110P09Rik	-2.238995852	-2.248192882	-0.93953196	-1.22559751
ENSMUSG00000040694	Apobec2	-2.553028762	-2.2474035	-1.18136236	0.034853102
ENSMUSG00000030606	Hapln3	-0.505749701	-2.238586333	-0.48501153	-1.27625635
ENSMUSG00000029205	Chrna9	-2.018931408	-2.237935108	-1.35564989	-1.681461964
ENSMUSG00000046415	B430212C06Rik	-0.478577875	-2.235593178	-0.365581	-1.563578838
ENSMUSG00000032291	Crabp1	-1.252373687	-2.234946742	-0.86490005	-1.031112841
ENSMUSG00000075390	Rpl36-ps8	-1.741036794	-2.23398392	1.091721015	-1.96315316
ENSMUSG00000033595	Lgi3	-1.601741028	-2.226835151	-0.41479034	-1.301302398
ENSMUSG00000091578	-	-1.934296866	-2.225903647	-0.72651718	-1.619646939
ENSMUSG00000073601	Serpib3c	-1.446684637	-2.224739682	-0.78817349	-1.127248811
ENSMUSG00000091939	-	-2.833810276	-2.223160025	-0.634708	-1.117394377
ENSMUSG00000031147	Magix	-1.874688079	-2.221148487	-1.38985307	-3.386340046
ENSMUSG00000062713	Sim2	-0.650155115	-2.219428633	-0.20424019	0.327736571
ENSMUSG00000001865	Cpa3	-0.761909595	-2.214328822	-1.25118416	-1.748658626
ENSMUSG00000007122	Casq1	-2.65675893	-2.213839562	-1.2660329	-0.113833042
ENSMUSG00000046550	Spin2	-0.000934951	-2.213298932	-0.91529575	-3.0762783
ENSMUSG00000090066	1110002E22Rik	-1.764653189	-2.211673467	-1.24702796	-0.375182908
ENSMUSG00000020469	Myl7	-2.511510703	-2.211323088	-0.7666951	-1.813025327
ENSMUSG00000039013	Siglec5	-0.693609409	-2.211229102	-0.58504297	-1.217383402
ENSMUSG00000090314	2310050C09Rik	-1.62219846	-2.206225861	-0.0619187	0.407706464
ENSMUSG00000091169	-	-0.563593175	-2.205045934	-1.02713464	-1.261851494
ENSMUSG00000061086	Myl4	-2.766197397	-2.203048916	-0.6663096	-1.398623589
ENSMUSG00000048399	Tprg	-1.03715553	-2.202575941	0.192117775	0.157201041

ENSMUSG00000020811	Wscd1	-1.569231727	-2.201281472	-0.62740054	-1.751675728
ENSMUSG00000058017	Serpib3d	-1.106004201	-2.199115158	-0.68563435	-0.201772026
ENSMUSG00000021319	Sfrp4	-0.522911765	-2.199096842	0.955452533	0.011261184
ENSMUSG00000025270	Alas2	-2.20380458	-2.198903758	-0.34214431	-2.206066441
ENSMUSG00000026301	Iqca	-1.758503586	-2.197878661	-1.11363038	-1.169588536
ENSMUSG00000078861	Zfp931	0.013394376	-2.19624989	1.450254901	-0.314932877
ENSMUSG00000022871	Fetub	-0.692848047	-2.195432543	-0.15731333	0.055442288
ENSMUSG00000004038	Gstm3	-2.078245072	-2.19374035	-0.59033544	-1.615092977
ENSMUSG00000008153	Clstn3	-1.965868476	-2.193629754	-0.83630807	-1.553905473
ENSMUSG00000058260	Serpina9	-0.766181339	-2.192045545	0.467643001	0.180854552
ENSMUSG00000029120	Ppp2r2c	-1.693788235	-2.191573363	-0.15985284	0.040204874
ENSMUSG00000080937	Gm13510	-0.516621212	-2.188996368	-0.93013138	-1.173577392
ENSMUSG00000073413	Ly6g6d	-0.838967908	-2.188651109	-0.5110984	-0.340115016
ENSMUSG00000003477	Inmt	-1.764593447	-2.183816235	-0.74988524	-1.686511811
ENSMUSG00000032500	Dclk3	-1.433929502	-2.182787989	-0.25841414	-3.010283488
ENSMUSG00000055980	Irs1	-1.700785519	-2.182044373	-0.52695495	-1.303517019
ENSMUSG00000040055	Gjb6	-1.022977824	-2.181219764	-0.3325262	-0.270168821
ENSMUSG00000031312	Itgb1bp2	-1.917528803	-2.175538437	-0.81088264	-1.931554655
ENSMUSG00000029153	Ociad2	-1.421849727	-2.173594523	-0.77842102	-1.302793957
ENSMUSG00000036813	Entpd8	-2.323912888	-2.172210088	-0.56949828	-1.407255108
ENSMUSG00000090490	-	-1.72323883	-2.166292947	-0.99973867	0.115829314
ENSMUSG00000038776	Ephx1	-1.692414268	-2.165919563	-0.85063219	-1.546311523
ENSMUSG00000030607	Acan	0.001246399	-2.163990419	0.128830749	0.76259168
ENSMUSG00000028036	Ptgfr	-0.515673758	-2.160662876	-0.51720061	-1.13533001
ENSMUSG00000086015	4833417C18Rik	-0.930098866	-2.160234954	-0.49879821	-0.129698696
ENSMUSG00000026961	Lrrc26	-2.999344229	-2.158231002	-1.53687055	-0.922576491
ENSMUSG00000044156	Hepacam2	-2.368419075	-2.157752886	-1.00614506	-1.004368954
ENSMUSG00000050097	Ces2b	-1.324058557	-2.155175886	-0.13042179	-1.617631238
ENSMUSG00000064201	Krt2	-2.489031073	-2.154987859	-1.60875049	0.489095826
ENSMUSG00000073940	Hbb-b2	-1.996823219	-2.15243985	0	0.152720908
ENSMUSG00000082513	Gm15374	-0.369279429	-2.152043789	-0.16038981	-1.878928669
ENSMUSG00000084088	Gm12941	0.708399083	-2.14377624	0.198961612	-0.551440488
ENSMUSG00000056632	Dsg3	-0.433307582	-2.143216777	0.201913515	0.168819036
ENSMUSG00000017309	Cd300lg	-1.855961084	-2.142305993	-0.93026845	-1.567823917
ENSMUSG00000046093	Hpcal4	-1.996276464	-2.140207902	-0.41932343	-1.640564528
ENSMUSG00000035459	Stab2	-0.32342481	-2.140011738	-0.07850326	-1.629972049
ENSMUSG00000031972	Acta1	-1.96933128	-2.139135005	-1.18033833	-1.838392439
ENSMUSG00000037188	Grhl3	-1.181013144	-2.138017302	-0.371285	-0.199780745
ENSMUSG00000051113	Fam71e1	-1.019334399	-2.135896344	-0.60906105	-1.461329679
ENSMUSG00000078252	Krtap17-1	-2.227056656	-2.124103268	-0.95458239	-3.3372679
ENSMUSG00000047227	Gm527	-0.386102138	-2.1210111	0.119240344	-0.663371533
ENSMUSG00000032454	Rbp2	-0.870433318	-2.117517352	-0.47284127	-1.170180656
ENSMUSG00000079319	-	-0.599143521	-2.115506071	0.636350977	-1.023377666
ENSMUSG00000049349	Gm5105	-1.30716041	-2.113621347	-1.96356237	0.017448414
ENSMUSG00000031886	Ces2e	-1.651617241	-2.112856808	-0.18119106	-1.016456384
ENSMUSG00000078169	Gm16499	-1.343504356	-2.112180246	-1.12428564	-2.993178457
ENSMUSG00000034810	Scn7a	-0.887131094	-2.110689393	-0.50477011	-1.494312383
ENSMUSG00000075307	Kbtbd10	-1.395284699	-2.108086823	-1.0646387	-0.455580156

ENSMUSG00000039004	Bmp6	-1.594888631	-2.106689292	-0.76848037	-1.599303685
ENSMUSG00000090891	D6Ertd527e	-2.370715991	-2.104312479	-0.79556102	-1.527336502
ENSMUSG00000070570	Slc17a7	-2.196587891	-2.104299941	0.124053258	-0.976406425
ENSMUSG00000073424	Cyp4f15	-1.618236973	-2.103553954	-0.63449884	-0.99413524
ENSMUSG00000081602	Gm15369	-0.766191691	-2.100699045	-0.20773163	-1.703597874
ENSMUSG00000030278	Cidec	-2.648477906	-2.098993836	-1.16456189	-2.233713281
ENSMUSG00000033763	Mtss11	-1.366720874	-2.098861822	-0.24552713	-1.470505632
ENSMUSG00000022206	Npr3	-1.620492209	-2.091929237	-0.36846871	-1.153447262
ENSMUSG00000024892	Pcx	-2.242082876	-2.090814198	-0.89035183	-1.024536785
ENSMUSG00000052305	Hbb-b1	-1.649683296	-2.090570623	0	-0.152720908
ENSMUSG00000022546	Gpt	-1.755104667	-2.086726383	-0.87541558	-1.254931541
ENSMUSG00000012705	Retn	-3.673708087	-2.085647404	-1.074304	-1.673502037
ENSMUSG00000033805	Ephx4	-0.068248645	-2.082978218	0.158256809	-0.962001558
ENSMUSG00000061068	Mcpt4	-1.925624874	-2.081969268	-0.62855199	-1.193821942
ENSMUSG00000021506	Pitx1	-1.242221338	-2.081937815	-0.14315238	0.473713128
ENSMUSG00000054619	Mettl7a1	-1.796993511	-2.081469129	-0.82797324	-1.617006037
ENSMUSG00000040794	C1qtnf4	-0.218833815	-2.080775732	-0.66783994	-1.469284435
ENSMUSG00000052450	2810055G20Rik	-0.245863538	-2.079438922	-0.61712758	-2.87376298
ENSMUSG00000086663	-	-1.443246919	-2.077279674	-0.05943013	-0.92753432
ENSMUSG00000029193	Cckar	-1.969825351	-2.076276878	-0.85958245	-0.98139271
ENSMUSG00000022591	Gm9747	-1.811313446	-2.075483052	-0.61123871	-1.779561041
ENSMUSG00000020566	Atp6v1c2	-0.963553009	-2.074779603	-0.37416908	-1.070763082
ENSMUSG00000021032	Ngb	-1.627597702	-2.074125885	0.174669727	-1.274903638
ENSMUSG00000066108	Muc5b	-0.46855757	-2.073233663	-0.0525886	-0.749091817
ENSMUSG00000071019	Sdr16c6	-1.23901889	-2.07194865	-0.42837633	-1.268015868
ENSMUSG00000006777	Krt23	-1.131507474	-2.070453791	-0.81915006	-0.880990154
ENSMUSG00000078964	Ces1b	-1.196367233	-2.069835555	-0.94419414	-0.873812215
ENSMUSG00000068888	Lce1i	-1.640937622	-2.067110652	-0.52130531	0.061847185
ENSMUSG00000063661	Krt73	-0.817584892	-2.065447747	0.09047204	0.506677987
ENSMUSG00000027376	Prom2	-1.048390104	-2.063697218	-0.07165372	-0.594236945
ENSMUSG00000060180	Myh13	-1.691265864	-2.061242634	-0.89269835	-0.149307986
ENSMUSG00000026824	Kcnj3	-2.120517461	-2.061153095	-1.28375557	-1.485321433
ENSMUSG00000040181	Fmo1	-1.481335251	-2.059787039	-0.94338375	-1.850418971
ENSMUSG00000030713	Klk7	-0.298218267	-2.056239079	0.013097533	0.29905945
ENSMUSG00000023336	Wfdc1	-1.372752241	-2.055676314	-0.34530127	-2.474191464
ENSMUSG00000020889	Nr1d1	-0.926876671	-2.054923559	-0.82234594	-0.532724217
ENSMUSG00000061259	Tmprss11d	-0.594339629	-2.053549403	0.798029853	1.117863458
ENSMUSG00000056605	Krt72-ps	-0.816513066	-2.050212197	0.136808102	0.503905629
ENSMUSG00000085069	Gm13111	-1.127254436	-2.047630564	-0.46225414	-1.1103265
ENSMUSG00000001300	Efnb2	-1.38949722	-2.044927327	-0.73554865	-1.503351869
ENSMUSG00000000903	Vpreb3	-1.157768381	-2.044239868	-1.0894138	-1.325595419
ENSMUSG00000091922	Gm17409	1.086792779	-2.041635615	0.533033552	-0.144843962
ENSMUSG00000023328	Ache	-1.102193443	-2.041563896	0.434995273	-0.198006575
ENSMUSG00000054514	2610204G22Rik	-0.924252071	-2.040812045	-1.67274715	-0.291240773
ENSMUSG00000060962	Dmkn	-1.055925438	-2.040711728	-0.20755659	-0.005254484
ENSMUSG00000031877	Ces2g	-1.170649576	-2.040556822	-0.25266181	-0.822743083
ENSMUSG00000025889	Snea	-2.096605529	-2.038216021	-0.50125655	-0.596352979
ENSMUSG00000058669	Nkx2-9	0.454142188	-2.037932841	0.521290573	-1.189938747

ENSMUSG00000026668	Ucma	1.228351953	-2.037139109	1.295291622	-0.210918847
ENSMUSG00000047216	Cdh19	-0.843304731	-2.036205349	0.227328844	-1.463421933
ENSMUSG00000054622	D730045B01Rik	-1.425040293	-2.034202179	-2.75342754	-0.428823803
ENSMUSG00000073465	Park2	1.187203499	-2.034202179	1.855068346	-1.13447725
ENSMUSG00000091141	-	-1.817140232	-2.03246059	1.42700981	-1.036145116
ENSMUSG00000057182	Scn3a	-1.321135585	-2.031766434	-0.51595348	-1.019312332
ENSMUSG00000046916	Myct1	-1.733345431	-2.030697485	-1.04163314	-1.522734996
ENSMUSG00000044287	Nrn1l	-0.250028733	-2.028782047	0.768132507	-0.13971423
ENSMUSG00000029669	Tspan12	-1.637227887	-2.02863306	-0.64776305	-1.497948969
ENSMUSG00000020182	Ddc	-0.424617131	-2.026872265	-1.09472774	-1.626913515
ENSMUSG00000067951	Vmn1r227	0	-2.025131587	0	-2.025131587
ENSMUSG00000091305	Gm17100	0.748443629	-2.022425167	-0.36865716	-1.964729814
ENSMUSG00000026984	Ilf6	-1.376320664	-2.01993883	-0.69296652	0.149796594
ENSMUSG00000030693	Klk10	-0.160361238	-2.017678517	0.072303831	0.516967046
ENSMUSG00000042451	Mybph	-1.592464321	-2.015489171	-0.63059849	-0.13767415
ENSMUSG00000024972	Lgals12	-2.278572856	-2.013002653	-0.9001218	-1.320655578
ENSMUSG00000035458	Tnni3	-1.561785779	-2.012261172	-0.63487606	-1.279500417
ENSMUSG00000062196	-	-0.967684912	-2.011616874	-0.2968384	-0.223741289
ENSMUSG00000026532	Spna1	-1.999059055	-2.010741099	-0.24762661	-1.050696153
ENSMUSG00000027919	Lcelg	-1.621227485	-2.009514298	-0.49803461	0.684510277
ENSMUSG00000035606	Ky	-1.47529092	-2.005924987	-1.70721943	-1.935070438
ENSMUSG00000087573	-	-1.205313775	-2.005719206	-0.73057547	-1.544497381
ENSMUSG00000027820	Mme	-1.220780163	-2.005580518	-0.62995092	-1.427967814
ENSMUSG00000032172	Olfm2	-2.277573665	-2.001261417	-1.31266388	-3.980623769
ENSMUSG00000048520	Fbx113	-0.784249882	-2.001002526	-0.24671536	-0.678941649
ENSMUSG00000086596	Susd5	-0.570196347	-1.98686461	-0.87882819	-2.464505841
ENSMUSG00000091658	-	-2.091665823	-1.985832975	-1.02163399	-0.294188195
ENSMUSG00000040752	Myh6	-2.268883776	-1.974486494	-0.55590479	-1.705900716
ENSMUSG00000058921	Slc10a5	-2.44206283	-1.967357335	-2.58559627	-1.706290858
ENSMUSG00000068480	Gm7551	-4.829123259	-1.964030511	-5.26450165	-2.108215556
ENSMUSG00000079278	Tmem233	-1.963333109	-1.958873978	-2.70209941	0.247578818
ENSMUSG00000061816	Myl1	-3.030402559	-1.957709331	-1.53154243	-0.270443991
ENSMUSG00000033044	Dhrs7c	-2.229445529	-1.951846901	-0.95357859	-0.573522742
ENSMUSG00000041476	Smpx	-1.822365572	-1.948922356	-1.04562956	-3.950654374
ENSMUSG00000031283	Chrd1l	-1.563164049	-1.948238284	-0.67614402	-2.781342929
ENSMUSG00000053093	Myh7	-2.383200103	-1.931675825	-0.84807637	-1.6270044
ENSMUSG00000030399	Ckm	-2.258700043	-1.927182337	-1.29066472	-0.210336042
ENSMUSG00000052131	Akr1b7	-1.26541187	-1.914828678	-1.0728143	-2.07920527
ENSMUSG00000018893	Mb	-2.852206317	-1.909911718	-1.78532247	-0.453601218
ENSMUSG00000071343	Gm10327	-2.927357854	-1.908784662	-5.36222307	-2.527346779
ENSMUSG00000017300	Tnnc2	-2.390898591	-1.908210288	-1.24637308	-0.052130193
ENSMUSG00000026715	Serpinc1	-2.058046514	-1.893598576	-3.16644939	-0.295926795
ENSMUSG00000032355	Mlip	-0.827273573	-1.890669372	-0.29064544	-2.169779407
ENSMUSG00000027887	Sypl2	-2.01527517	-1.889980342	-1.3132933	0.225748329
ENSMUSG00000041653	Pnpla3	-2.672600547	-1.887677268	-1.36066822	-1.60744076
ENSMUSG00000031377	Bmx	-1.738371049	-1.886651678	-1.10002144	-3.116076708
ENSMUSG00000040705	A930016O22Rik	-2.249268347	-1.884335451	-1.23908617	-0.150200495
ENSMUSG00000074217	2210011C24Rik	-2.002736765	-1.86846798	-0.77601603	-1.525747788



ENSMUSG00000040289	Hey1	-2.153985828	-1.867172846	-0.526356	-0.840619815
ENSMUSG00000031919	Tmed6	-3.1952773	-1.847156774	-0.66353385	-0.223317893
ENSMUSG00000052698	Tln2	-1.202699376	-1.841683504	-0.5639699	-2.651027899
ENSMUSG00000074505	Fat3	-1.23378721	-1.841080245	0.012246794	-2.809065365
ENSMUSG00000038967	Pdk2	-2.070759035	-1.834904947	-0.92835445	-1.29258248
ENSMUSG00000037681	Esyt3	-1.800802545	-1.82566649	-1.03917393	-2.635283941
ENSMUSG00000040283	Btnl9	-2.929693692	-1.821391607	-2.26886625	-1.779199497
ENSMUSG00000067594	Krt77	-2.482105211	-1.815618919	-1.62704913	0.531424088
ENSMUSG00000041737	Tmem45b	-2.646860696	-1.814419653	-1.71346996	-2.831304073
ENSMUSG00000024386	Proc	-1.124619292	-1.801597728	-2.33608278	-4.071849023
ENSMUSG00000032064	Dixdc1	-1.36618325	-1.768223992	-1.16108486	-2.915329601
ENSMUSG00000069268	Hist1h2bf	-2.524523516	-1.765753407	-0.30996611	-1.003155517
ENSMUSG00000032401	Lctl	-2.382222244	-1.753912896	-0.7723561	-2.793897554
ENSMUSG00000068697	Myoz1	-2.066998718	-1.752220887	-1.45306562	0.047706912
ENSMUSG00000091041	Gm17720	0.368598631	-1.751016353	1.699659136	-3.523574501
ENSMUSG00000032418	Me1	-1.919194391	-1.748990249	-1.17753004	-2.752201914
ENSMUSG00000046834	Krt1	-2.297712626	-1.730439582	-1.61896451	0.309704056
ENSMUSG00000080958	Gm11902	-0.95286617	-1.730414217	-1.89474113	-2.104309885
ENSMUSG00000031519	Asb5	-2.302215414	-1.71041587	-0.91718414	-0.178137877
ENSMUSG00000042750	Bex2	-1.394606149	-1.708989126	-0.85424041	-3.530586488
ENSMUSG00000037010	Apln	-1.178935749	-1.706627674	-0.51058753	-2.327393295
ENSMUSG00000032034	Kcnj5	-2.087670083	-1.706143604	-0.72880046	-2.751685689
ENSMUSG00000020475	Pgam2	-2.129869182	-1.705205974	-0.79815373	-0.440153305
ENSMUSG00000041633	Kctd12b	-1.14317883	-1.704883081	-1.34336803	-2.842611532
ENSMUSG00000083502	Gm14861	-1.992404144	-1.696065056	-2.42640888	-1.877004467
ENSMUSG00000031841	Cdh13	-1.414523115	-1.690136524	-0.60961595	-2.651678976
ENSMUSG00000046782	Ttc6	-2.512697532	-1.688209566	-2.18034074	-0.08693562
ENSMUSG00000091431	-	1.695178395	-1.679608528	0.254616041	-2.465975455
ENSMUSG00000032377	Plscr4	-1.166290495	-1.664886816	-0.46997714	-2.567636683
ENSMUSG00000022519	Srl	-2.283018937	-1.659699049	-0.9953427	-0.616735454
ENSMUSG00000021909	-	-2.745913293	-1.657504711	-0.7495571	-1.189798204
ENSMUSG00000022595	Lypd2	-2.402701393	-1.6567343	-1.00511318	-0.655375833
ENSMUSG00000091219	-	-1.034220939	-1.65579433	0.056341232	-3.340139409
ENSMUSG00000091898	Tnnc1	-2.750774896	-1.648655628	-0.75305661	-1.191660506
ENSMUSG00000045104	Gm5514	-2.050173156	-1.639880503	-1.18263436	-0.876754288
ENSMUSG00000033544	Angptl1	-2.223304601	-1.633437332	-1.65595082	-0.075468332
ENSMUSG00000050164	Mchr1	-2.131036635	-1.62703655	-0.2674891	-1.276572624
ENSMUSG00000091354	-	-2.193412622	-1.625471866	-0.53406909	-2.539213514
ENSMUSG00000028167	Bdh2	-2.769605578	-1.620805923	-1.04852248	-2.144603844
ENSMUSG00000035878	Agphd1	-0.708524875	-1.615765997	-0.80688243	-3.242700713
ENSMUSG00000030672	Mylpf	-2.568217743	-1.613271706	-1.48450107	0.138982793
ENSMUSG00000050520	Cldn8	-1.517798897	-1.612473486	-2.07240437	-1.813856972
ENSMUSG00000084025	Gm6276	-0.794290871	-1.609578527	-2.27106043	0.201864415
ENSMUSG00000048355	Arxes1	-1.761154306	-1.600277124	-0.52408813	-2.775028964
ENSMUSG00000032332	Col12a1	-1.147051151	-1.599722759	-0.45588597	-2.613764282
ENSMUSG00000083241	Gm13259	0	-1.589034766	0	-3.28833929
ENSMUSG00000001403	Ube2c	-2.203546012	-1.587110036	-1.16663453	0.081350543
ENSMUSG00000034910	Pygo1	-1.206879252	-1.582476815	-0.79532126	-2.754727516

ENSMUSG00000020216	Jsrp1	-2.275652994	-1.576358933	-1.30981986	-0.430646813
ENSMUSG00000041624	Gucy1a2	-1.099534845	-1.57230902	-0.33656499	-2.316998902
ENSMUSG00000040855	Reps2	-1.183458291	-1.571480282	-0.39179828	-2.624041176
ENSMUSG00000082629	Gm5639	-1.831375325	-1.568884845	-0.57839123	-2.619140858
ENSMUSG00000025815	Dhtkd1	-1.490729793	-1.566807011	-1.17980703	-2.195038381
ENSMUSG00000033577	Myo6	-0.950664177	-1.565089421	-0.70586425	-2.879349593
ENSMUSG00000006574	Slc4a1	-2.480095689	-1.564199914	-0.58692589	-1.724001204
ENSMUSG00000060913	Trim55	-2.452552502	-1.556112226	-0.27240688	-0.742306968
ENSMUSG00000061974	Cldn24	-2.628829212	-1.550647757	-2.6305959	-0.656532515
ENSMUSG00000032528	Vipr1	-0.095807415	-1.548659115	-0.09008961	-2.19290271
ENSMUSG00000071745	DXBay18	-1.915559113	-1.548021341	-0.60328521	-2.292532212
ENSMUSG00000006235	Epor	-1.263998099	-1.542363405	-0.57980321	-2.334378232
ENSMUSG00000039099	Wdr93	-2.058429117	-1.539573365	-1.41690527	-0.44329531
ENSMUSG00000048040	Arxes2	-1.61572692	-1.531006468	-0.45201998	-2.844949287
ENSMUSG00000005716	Pvalb	-4.820965404	-1.521945961	-3.88388528	1.251719835
ENSMUSG00000026489	Adck3	-2.300370054	-1.519375305	-1.99140486	-1.03877564
ENSMUSG00000040147	Maob	-0.858222784	-1.515471716	-0.50788553	-2.665636697
ENSMUSG00000029862	Cln1	-2.274128986	-1.497016494	-1.66989898	-0.426414295
ENSMUSG00000056328	Myh1	-2.788842134	-1.486329707	-1.81780147	-0.297720364
ENSMUSG00000037493	Cib2	-1.176234084	-1.480928366	-0.95027982	-2.483372098
ENSMUSG00000038201	Kcna7	-2.377216156	-1.477255717	-1.7427641	0.69041546
ENSMUSG00000073975	Olfr550	-1.480355091	-1.476256629	-0.67560168	-2.169905466
ENSMUSG00000019278	Dpep1	-1.352853	-1.475208967	-0.41618871	-2.845837852
ENSMUSG00000067771	Gm14685	-2.343299346	-1.475167341	-0.06362584	-2.056114251
ENSMUSG00000037347	Chst7	-1.070498429	-1.473528497	-0.70099105	-2.649628045
ENSMUSG00000025810	Nrp1	-0.863766066	-1.471413036	-0.55082004	-2.745611685
ENSMUSG00000029735	Tpk1	-0.347956869	-1.464025684	0.242932793	-2.401654756
ENSMUSG00000047844	Bex4	-1.113319479	-1.461639296	-0.61147762	-2.808386793
ENSMUSG00000036867	Smad6	-1.501995282	-1.456391512	-0.48804653	-2.786048906
ENSMUSG00000036551	Akap14	-1.416371589	-1.454642181	-0.96438576	-2.608564913
ENSMUSG00000040533	Matn1	-1.084962932	-1.454456939	-2.10910909	-0.657409695
ENSMUSG00000051726	Kcnf1	-2.147365172	-1.452485006	-0.47428776	-1.462174849
ENSMUSG00000091867	Cyp2a22	-1.047922219	-1.451778186	-3.36964289	-2.025027074
ENSMUSG00000029019	Nppb	-3.279261469	-1.450425202	0.255548463	-0.680201342
ENSMUSG00000083870	Gm11761	-0.19097836	-1.445625219	-2.57245329	-0.688072527
ENSMUSG00000007877	Tcap	-2.029736792	-1.438781594	-1.63161022	-0.409350124
ENSMUSG00000046240	Hepacam	-1.915240958	-1.433270218	-0.22601261	-2.882574345
ENSMUSG00000008658	Rbfox1	-2.075138771	-1.425307191	-1.29111597	0.143696961
ENSMUSG00000027022	Xirp2	-2.915457087	-1.420528657	-1.6205475	0.134026024
ENSMUSG00000061311	Rag1	-3.28683828	-1.416665767	-1.73767561	-2.419129347
ENSMUSG00000090889	Gm17428	-2.005983268	-1.406741302	-0.60205253	-1.570191495
ENSMUSG00000025893	Kbtbd3	-0.614792828	-1.389607216	-0.12653397	-2.638012306
ENSMUSG00000032554	Trf	-0.981853689	-1.382869984	-0.40097025	-2.42660013
ENSMUSG00000079669	Gm17396	-0.413217656	-1.378223064	-0.21682652	-3.840018295
ENSMUSG00000029195	Klb	-1.794933473	-1.376032291	-1.36116414	-2.208162948
ENSMUSG00000091138	-	-1.207698329	-1.373870506	-0.18984472	-2.7979696
ENSMUSG00000061723	Tnnt3	-2.259568364	-1.373778625	-1.31716269	0.032719063
ENSMUSG00000009216	Fam163b	0.82387305	-1.368638475	1.753658488	-2.071556041

ENSMUSG00000078820	-	-2.697523802	-1.362181972	-1.45377623	-0.373911814
ENSMUSG00000032527	Pccb	-1.303857303	-1.361822857	-0.56284683	-2.489020462
ENSMUSG00000054978	Kbtbd13	-1.532310183	-1.360692603	-1.55440442	-3.298135692
ENSMUSG00000071317	Bves	-2.057845313	-1.353190878	-1.2566518	-0.526751593
ENSMUSG00000087365	C430049B03Rik	-0.816388845	-1.342830955	0.110729808	-2.500494715
ENSMUSG00000045414	1190002N15Rik	-1.19756225	-1.339551803	-0.8283812	-2.605784035
ENSMUSG00000022040	Ephx2	-2.014744285	-1.335394425	-1.24972369	-1.663986221
ENSMUSG00000090983	-	-1.023583149	-1.32587641	-2.56815078	-2.251476633
ENSMUSG00000092099	Gm17530	0.270422562	-1.319089754	0.140726713	-3.21022094
ENSMUSG00000058463	Gm5471	0.03363021	-1.313811184	-0.81749877	-2.249121881
ENSMUSG00000058254	Tspan7	-0.998948536	-1.304182902	-0.49459139	-2.737588362
ENSMUSG00000087466	A330041J22Rik	-2.243302208	-1.30378944	-1.02765212	-2.097683715
ENSMUSG00000036395	Glb112	-0.879272331	-1.30200474	-0.65020957	-3.25904645
ENSMUSG00000061780	Cfd	-2.908303733	-1.298146514	-0.8379074	-1.74780221
ENSMUSG00000032549	Rab6b	-1.619697142	-1.295854173	-0.86853465	-3.642408179
ENSMUSG00000031379	Pir	-0.658908529	-1.293659817	-0.35936547	-2.736670906
ENSMUSG00000042045	Sln	-1.846617444	-1.292086028	-0.85868245	-2.034177792
ENSMUSG00000091345	Col6a5	-1.949908452	-1.286973838	-0.85786013	-3.34412127
ENSMUSG00000023092	Fhl1	-1.133966801	-1.286477521	-0.4684026	-2.773996766
ENSMUSG00000038233	Fam198a	-1.709963382	-1.285799221	-0.25965687	-2.205792418
ENSMUSG00000073681	-	-2.663586497	-1.276091642	-3.09596956	-1.019499434
ENSMUSG00000043719	Col6a6	-1.398591146	-1.27237732	-0.81002767	-2.386054732
ENSMUSG00000066235	Gtdc2	-0.963274694	-1.266606113	-0.33786222	-2.591575818
ENSMUSG00000032511	Scn5a	-2.049879676	-1.259694029	0.009184735	-2.430003794
ENSMUSG00000049281	Scn3b	-1.063701278	-1.257532194	-0.52929887	-2.39367125
ENSMUSG00000084137	Gm9085	0.908809551	-1.256109898	0.077871517	-3.783615594
ENSMUSG00000047419	Cmya5	-2.210552695	-1.254290827	-1.43220518	-0.277801126
ENSMUSG00000038064	Cldn22	-2.133335657	-1.237028512	-2.53234582	-0.601292957
ENSMUSG00000079428	Tceal7	-0.930688626	-1.236560442	-0.5863613	-2.208249769
ENSMUSG00000086780	-	-1.935083609	-1.233523793	-0.63796665	-2.705982395
ENSMUSG00000032417	Rwdd2a	-1.049703683	-1.225568017	-0.27838707	-2.403547527
ENSMUSG00000032348	Gsta4	-1.087184056	-1.223115546	-0.38312192	-2.112335269
ENSMUSG00000027713	1810062G17Rik	1.022870029	-1.219694273	0.376196646	-3.134991983
ENSMUSG00000057003	Myh4	-2.6788016	-1.21602875	-1.7971851	0.313151404
ENSMUSG00000054034	Tceal5	-0.661043135	-1.206470391	-0.00247942	-2.347424004
ENSMUSG00000038204	Asb10	-2.991789445	-1.202932977	-1.25220122	0.036633227
ENSMUSG00000046818	Ddit4l	-2.085170174	-1.20181794	-1.46368379	0.315739991
ENSMUSG00000039607	Rbms3	-0.615553137	-1.19475058	-0.20404693	-2.443894662
ENSMUSG00000052374	Actn2	-2.539506929	-1.190570682	-1.08896584	-0.238326509
ENSMUSG00000090642	Gm17182	-1.357869099	-1.186874617	-0.7733976	-2.120968646
ENSMUSG00000031996	Aplp2	-0.812843059	-1.186755783	-0.38419535	-2.586478201
ENSMUSG00000038239	Hrc	-2.315457901	-1.186679279	-1.10920524	-0.560424572
ENSMUSG00000025037	Maoa	-0.593656007	-1.180397097	-0.50465476	-2.642812356
ENSMUSG00000029368	Alb	-9.964365666	-1.179199564	-7.70048045	-0.810365507
ENSMUSG00000066072	Cyp4a10	-2.028451952	-1.177029985	-1.51165228	-0.967332058
ENSMUSG00000090639	Gm20425	-0.903122372	-1.173162579	-0.36005128	-2.309265117
ENSMUSG00000001349	Cnn1	-0.416416059	-1.172434505	0.696737223	-2.14876739
ENSMUSG00000040875	Osbp110	-1.022727086	-1.172107867	-0.6131885	-2.154419376

ENSMUSG00000028396	2310002L09Rik	-3.543624927	-1.172095406	-1.99344867	-1.106674236
ENSMUSG00000026085	Lyg1	-4.165373009	-1.168789635	-0.42812778	-1.548359882
ENSMUSG00000091119	Ccdc152	1.571038132	-1.16709139	0.730943702	-2.42851247
ENSMUSG00000059495	Arhgef12	-0.5079535	-1.156962445	-0.43228205	-2.476280715
ENSMUSG00000031373	Car5b	-1.733180994	-1.150655667	-1.10476805	-2.492595034
ENSMUSG00000031097	Tnni2	-2.373675991	-1.145270474	-1.36631044	0.30185627
ENSMUSG00000046242	1600029I14Rik	-1.040886099	-1.142264775	-0.73229442	-2.491047726
ENSMUSG00000052934	Fbxo31	-0.948857852	-1.129179898	-0.18777191	-2.110406936
ENSMUSG00000031495	Cd209d	-2.412892492	-1.124008481	-1.0172011	-1.103577867
ENSMUSG00000036782	Klhl13	-1.082132133	-1.123545835	-0.81459177	-2.067464499
ENSMUSG00000008035	Mid1ip1	-0.955683502	-1.119820706	-0.22543654	-2.106478434
ENSMUSG00000033590	Myo5c	-1.120971736	-1.117743588	-0.43185081	-2.246079143
ENSMUSG00000090150	Acad11	-0.961107049	-1.117433402	-0.6534033	-2.325952215
ENSMUSG00000031292	Cdk15	-0.814580866	-1.11203592	-0.60038672	-2.275315457
ENSMUSG00000031209	Heph	-0.679719312	-1.111837041	0.130217217	-2.973709285
ENSMUSG00000086119	Gm2415	-0.675044701	-1.111349833	0.439802522	-2.414245297
ENSMUSG00000046532	Ar	-0.498539905	-1.104119485	-0.60591702	-2.836178366
ENSMUSG00000032203	Pigb	-0.758586754	-1.101732731	-0.48519022	-2.165838764
ENSMUSG00000061273	Mmgt1	-0.676346998	-1.098959238	-0.43858432	-2.217136276
ENSMUSG00000087644	Gm14703	-0.47881029	-1.091997094	-0.05074091	-2.179629417
ENSMUSG00000050671	Ism2	-2.047380671	-1.087594474	-0.72343312	-2.510785641
ENSMUSG00000000266	Mid2	-0.622829596	-1.084800735	-0.50139124	-2.498653466
ENSMUSG00000085173	Gm2869	-1.447091513	-1.083317891	-2.00332487	-0.181457876
ENSMUSG00000061393	Acvr2b	-0.924063234	-1.08058448	-0.38509237	-2.544533109
ENSMUSG00000038663	Fsd2	-2.04312455	-1.080223507	-1.17797586	-0.890783293
ENSMUSG00000025784	Clec3b	-0.996034813	-1.076606792	-0.05833216	-2.295571001
ENSMUSG00000033350	Chst2	-0.926961103	-1.074581121	-0.15591214	-2.516189855
ENSMUSG00000051226	-	-2.031610906	-1.073864572	-1.69062165	-0.642711214
ENSMUSG00000032452	Clstn2	-0.696265186	-1.073615203	-0.07336145	-2.369290537
ENSMUSG00000047412	Zbtb44	-0.579507898	-1.07293985	-0.26174781	-2.223728669
ENSMUSG00000069620	Dppa5b	-0.689396679	-1.071247819	1.232930154	-2.735398749
ENSMUSG00000032076	Cadm1	-0.745414388	-1.070855913	-0.33748691	-2.474929875
ENSMUSG00000039956	Mrap	-2.384466034	-1.067544672	-1.25939575	-1.437576974
ENSMUSG00000027442	Cst8	-0.674551947	-1.06397226	-2.70352868	-1.06397226
ENSMUSG00000042903	Foxo4	-1.065489944	-1.060716464	-0.35079888	-2.300215248
ENSMUSG00000078864	Gm14322	0.729535936	-1.055320546	0.680493134	-2.363199984
ENSMUSG00000087156	-	-0.479078114	-1.055011184	0.458342143	-2.105850285
ENSMUSG00000032526	Deb1	-0.970201166	-1.054914599	-0.43448758	-2.95987485
ENSMUSG00000024512	2310002L13Rik	-2.241656372	-1.051392985	0.550422529	-0.453276159
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ENSMUSG00000082605	Gm16148	-1.1928499	-1.043570582	-3.41821706	-0.35803194
ENSMUSG00000043518	Rai2	-0.74160594	-1.04255028	-0.87798145	-2.389951714
ENSMUSG00000091332	-	0.409547234	-1.041509216	-2.95826575	-2.917384188
ENSMUSG00000068270	Shroom4	-0.713063312	-1.036268249	-0.34209744	-2.117298781
ENSMUSG00000072641	Cux2	0.610030625	-1.036100058	1.736955128	-2.554284704
ENSMUSG00000050071	Bex1	-1.174749604	-1.029649873	-0.75337453	-2.480472355
ENSMUSG00000041012	Cmtm8	-0.976823174	-1.028057347	-0.4419414	-2.001762528
ENSMUSG00000047409	Ctdspl	-0.688129045	-1.026225868	-0.29090083	-2.403908451

ENSMUSG00000042073	Abhd14b	-1.153375508	-1.024451628	-0.41761604	-2.533366985
ENSMUSG00000034467	Dynlrb2	-0.928443637	-1.017905865	-0.38448623	-2.134562733
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ENSMUSG00000055653	Gpc3	-1.372503398	-1.01547841	-0.44766638	-2.351683567
ENSMUSG00000034563	Ccpg1	-0.839804135	-1.01144824	-0.66615871	-2.39746816
ENSMUSG00000041361	Myzap	-1.271945255	-1.009924089	-0.77035069	-2.559190215
ENSMUSG00000057880	Abat	-2.159012432	-1.008951464	-1.04620049	-1.152454229
ENSMUSG00000020295	Hbq1a	-2.083471719	-1.008121568	-1.51153273	0.997146381
ENSMUSG00000055733	Nap113	-0.909890068	-1.007546809	-0.10576204	-2.233640436
ENSMUSG00000035847	Ids	-0.474608699	-1.007428181	-0.46158196	-2.463303797
ENSMUSG00000084158	Gm14652	-1.509834923	-1.001128297	-0.24642928	-2.408910184
ENSMUSG00000049556	Lingo1	-1.17232874	-0.995909982	-1.26980894	-2.180705894
ENSMUSG00000059327	Eda	-1.238617788	-0.995908653	-0.7232446	-2.67625318
ENSMUSG00000039278	Pcsk1n	-1.004465765	-0.991448442	0.24866801	-3.185159108
ENSMUSG00000031434	Morc4	-0.93565279	-0.991056206	-0.11536846	-2.543415946
ENSMUSG00000089865	Gm20510	-0.840672951	-0.988770823	-0.63830717	-2.344970446
ENSMUSG00000056267	Cep70	-1.231981691	-0.988748663	-1.15638339	-2.431619015
ENSMUSG00000006373	Pgrmc1	-1.015054497	-0.986339115	-0.44644492	-2.297448672
ENSMUSG00000052187	Hbb-y	-2.081871336	-0.985892382	-1.46390464	-0.808458474
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ENSMUSG00000034584	Exph5	-0.690759778	-0.976726899	-0.54395309	-2.469901533
ENSMUSG00000074673	Ttl9	-2.42701226	-0.972236816	-1.80970363	-0.25862269
ENSMUSG00000078640	Gm11627	-2.926281487	-0.970296188	-1.03288889	-1.68621053
ENSMUSG00000001995	Sipa112	-0.637799975	-0.970008151	-0.36405595	-2.335034514
ENSMUSG00000001948	Spa17	-0.891923844	-0.969362214	-0.80221645	-2.010264363
ENSMUSG00000074001	Kbtbd5	-2.418082759	-0.967900229	-0.93193025	-1.185692317
ENSMUSG00000054863	Fam19a5	-2.124319789	-0.966948791	-1.00618988	-0.27358986
ENSMUSG00000032198	Dock6	-0.759780732	-0.961706724	-0.01291865	-2.364401164
ENSMUSG00000032531	Amotl2	-0.930243621	-0.957073712	-0.50124352	-2.382760268
ENSMUSG00000032366	Tpm1	-1.039216584	-0.956367191	-0.5393341	-2.171198823
ENSMUSG00000043154	Ppp2r3a	-1.156242802	-0.953489062	-0.85576748	-2.109511872
ENSMUSG00000040883	Tmem205	-0.679183126	-0.953076081	-0.64772411	-2.412824403
ENSMUSG00000041748	Ccr11	-0.321504364	-0.928352886	-0.1192947	-2.027215471
ENSMUSG00000016386	Mpped2	-2.428809881	-0.925395274	-0.10929881	-0.693374181
ENSMUSG00000032380	Dapk2	-1.226842882	-0.925049139	-0.7449372	-2.373695695
ENSMUSG00000035202	Lars2	-0.630818033	-0.921233746	-0.43415801	-2.668922237
ENSMUSG00000010051	Hyal1	-0.455638221	-0.919885193	-0.0126171	-2.48034545
ENSMUSG00000001943	Vsig2	-0.33905076	-0.912527338	0.181473409	-2.619591098
ENSMUSG00000025597	Klhl4	-0.344476317	-0.910932717	-1.01779736	-3.306820099
ENSMUSG00000033460	Armcx1	-0.699971296	-0.897056657	-0.71149678	-2.7943218
ENSMUSG00000032374	Plod2	-0.80481289	-0.896822173	-0.33877769	-2.21747597
ENSMUSG00000083772	Gm15566	-0.353246848	-0.896691787	-1.48947544	-5.006310295
ENSMUSG00000033196	Myh2	-3.073247264	-0.896539546	-2.03849114	0.251977102
ENSMUSG00000043384	Gprasp1	-0.633889363	-0.8922382	-0.05321657	-2.099690106
ENSMUSG00000032609	Klhdc8b	-0.976207572	-0.882235339	0.160010848	-2.062415017
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ENSMUSG00000089883	Gm3355	-1.909800568	-0.868166163	-2.0216981	1.189091865

ENSMUSG00000046480	Scn4b	-2.18739305	-0.866308235	-1.42816489	-1.168121823
ENSMUSG00000031431	Tsc22d3	-0.363449404	-0.865280749	0.11608123	-2.146580265
ENSMUSG00000047485	Klhl34	-2.184837676	-0.864946913	-1.50943149	-1.800201709
ENSMUSG00000031299	Pdha1	-1.034505752	-0.864155876	-0.85711734	-2.295102852
ENSMUSG00000084118	Gm14989	1.87415919	-0.861436676	0.658650242	-2.446526214
ENSMUSG00000075587	Gm11531	-2.081568141	-0.85749382	-1.52877089	-1.218590068
ENSMUSG00000031812	Map1lc3b	-0.5916763	-0.85611628	-0.24814251	-2.29994551
ENSMUSG00000052911	Lamb2	-0.654885387	-0.854953388	-0.18822778	-2.271282347
ENSMUSG00000042812	Foxf1	-0.533053942	-0.85325697	-0.23311344	-2.532200915
ENSMUSG00000030730	Atp2a1	-2.484984492	-0.850779421	-1.97463821	0.48561039
ENSMUSG00000027077	Smtnl1	-2.173858402	-0.848490544	-1.45334994	0.387420403
ENSMUSG00000032387	Rbpms2	-0.529481777	-0.845715601	-0.76560016	-2.678836541
ENSMUSG00000006675	P4htm	-0.923060823	-0.839807298	-0.48643653	-2.700660351
ENSMUSG00000074854	-	-3.334106089	-0.834595537	-4.7206447	-0.946879588
ENSMUSG00000032232	Cgnl1	-0.665205307	-0.832865361	-0.39468583	-2.262416293
ENSMUSG00000081098	Gm12220	-2.38475667	-0.827655802	-0.17076025	-0.056536257
ENSMUSG00000029236	Nmu	-2.549978994	-0.827654833	-0.21856311	-0.771722293
ENSMUSG00000061490	Ube2d4	-2.032585501	-0.827396662	-1.44231634	-0.031690381
ENSMUSG00000032311	Nrg4	-0.09073563	-0.826317947	-0.4563426	-2.030206081
ENSMUSG00000032449	Slc25a36	-0.499287398	-0.824978554	-0.43765715	-2.124986563
ENSMUSG00000071347	C1qtnf9	-2.354022953	-0.82447585	-1.06678875	-0.873367778
ENSMUSG00000063632	Sox11	-2.151350656	-0.823511072	-0.66076342	0.01135941
ENSMUSG00000033965	Slc16a2	-0.74797748	-0.819280113	-0.12528823	-2.175847112
ENSMUSG00000042444	Fam63b	-0.41557307	-0.818859344	-0.09469216	-2.029106352
ENSMUSG00000052658	5830454E08Rik	-0.815433899	-0.811045983	-0.23424578	-2.546418487
ENSMUSG00000032911	Cspg4	-0.17077378	-0.807535045	0.367670866	-2.010314892
ENSMUSG00000032375	Aph1b	-0.31555514	-0.806263336	-0.24982156	-2.097249642
ENSMUSG00000032194	Kank2	-0.827640841	-0.79951413	-0.2994802	-2.380122859
ENSMUSG00000038145	Snrk	-0.162586303	-0.796630344	0.123101583	-2.092418958
ENSMUSG00000032246	Calml4	-0.751313726	-0.792372354	-0.69406491	-2.5394208
ENSMUSG00000031216	Stard8	-0.618426112	-0.791476149	-0.12155808	-2.119765533
ENSMUSG00000032279	Idh3a	-0.856121536	-0.789436102	-0.77392368	-2.193405644
ENSMUSG00000050730	Arhgap42	-0.180217427	-0.784461454	0.191636087	-2.294679416
ENSMUSG00000045103	Dmd	-0.815035154	-0.781960973	-0.46862977	-2.20445065
ENSMUSG00000081236	Gm13574	1.412034138	-0.777572415	0.325530771	-2.286730511
ENSMUSG00000028116	Myoz2	-2.12837244	-0.767032977	-0.97515922	-0.84407092
ENSMUSG00000051234	Rnf7	-0.531678799	-0.7588698	-0.46439657	-2.046507989
ENSMUSG00000031425	Plp1	-0.38858194	-0.75874688	-0.17380828	-2.051334715
ENSMUSG00000032010	Usp2	-0.395683956	-0.757928018	-0.046271	-2.053144827
ENSMUSG00000080254	Gm15380	-0.468421934	-0.75328397	-0.84907096	-2.177827685
ENSMUSG00000074046	-	-0.333850849	-0.752735244	-0.03848016	-3.232312995
ENSMUSG00000013076	Amotl1	-0.816845745	-0.750908644	-0.3100476	-2.225099198
ENSMUSG00000066357	Wdr6	-0.792754438	-0.749311485	-0.46724676	-2.154227803
ENSMUSG00000028773	Fabp3	-2.420647379	-0.749174137	-1.68558506	-1.322906843
ENSMUSG00000048537	Phldb1	-0.880285146	-0.747176863	-0.0896424	-2.073097073
ENSMUSG00000051133	Gm6293	-1.038961756	-0.740604961	1.231173199	-2.04194717
ENSMUSG00000032839	Trpc1	0.007829517	-0.73588739	-0.31607487	-2.149694924
ENSMUSG00000056366	Fabp3-ps1	-2.602643901	-0.735576377	-1.81929881	-1.40388012

ENSMUSG00000083416	Gm15378	-0.921793416	-0.731846939	-0.1369675	-2.649463511
ENSMUSG00000032047	Acat1	-0.974676436	-0.730351259	-0.90280035	-2.232922973
ENSMUSG00000080795	Gm6783	-0.318354848	-0.728244518	-0.83358828	-2.977668859
ENSMUSG00000082245	Gm6292	-0.129931462	-0.726752821	-0.98082343	-4.581170033
ENSMUSG00000085396	6720401G13Rik	-0.804127598	-0.721376517	-0.09248141	-2.770448548
ENSMUSG00000032733	Snx33	-0.589782421	-0.721322409	-0.28537395	-2.022693576
ENSMUSG00000046714	Foxc2	-0.897026201	-0.71998463	0.07884974	-2.473246128
ENSMUSG00000032216	Nedd4	-0.431392545	-0.719614378	-0.41002624	-2.270394969
ENSMUSG00000087096	-	-1.188201821	-0.712287966	-2.03621346	0.840269145
ENSMUSG00000031253	Srpx2	-0.086082789	-0.706480348	0.142606889	-2.407375538
ENSMUSG00000046402	Rbp1	-0.357682545	-0.702464109	-0.10463732	-2.281687618
ENSMUSG00000025862	Stag2	-0.225303672	-0.701407957	-0.36632434	-2.141105127
ENSMUSG00000081797	Gm8662	-0.028242128	-0.698994379	-0.47141245	-7.139299157
ENSMUSG00000032356	Rasgrf1	-1.305674381	-0.697325056	-0.14670088	-3.239412054
ENSMUSG00000031176	Dynlt3	-0.28451685	-0.695876429	-0.28872724	-2.005425766
ENSMUSG00000032067	Pts	-0.182140395	-0.694520412	-0.48378047	-2.21110557
ENSMUSG00000025812	Pard3	-0.426817042	-0.694018328	-0.03679841	-2.091339502
ENSMUSG00000037287	Tbcel	-0.575139803	-0.693833915	-0.47845152	-2.035413444
ENSMUSG00000037358	4930578C19Rik	-0.153283242	-0.692863561	-0.05617759	-2.983319175
ENSMUSG00000032085	Tagln	-0.384130842	-0.685158632	0.420444956	-2.086411384
ENSMUSG00000041696	Rasl12	-0.801467343	-0.683796139	-0.27776776	-2.29545279
ENSMUSG00000083897	Gm14843	-0.661503987	-0.681445938	-0.19958631	-2.842161717
ENSMUSG00000032398	Snape5	-0.694055471	-0.67344087	-0.39477045	-2.203527152
ENSMUSG00000043943	Naalad2	-0.222293653	-0.672600713	-0.14413854	-2.168109272
ENSMUSG00000041688	Amot	-1.147401034	-0.671933938	-1.01049695	-2.212778137
ENSMUSG00000021622	Ckmt2	-4.313264323	-0.670443736	-2.68042233	0.225374814
ENSMUSG00000049804	Armcx4	-1.01874978	-0.667326623	-0.86757391	-2.674763586
ENSMUSG00000073158	9030624G23Rik	-1.794496058	-0.66069227	-3.79834012	-0.515352943
ENSMUSG00000020061	Mybpc1	-2.243739921	-0.655177439	-1.40381492	0.387572401
ENSMUSG00000001366	Fbxo9	-0.570333017	-0.650941101	-0.39040624	-2.004143879
ENSMUSG00000080878	Gm15618	-0.990340632	-0.649622679	-0.96789589	-3.138018528
ENSMUSG00000081281	Gm6274	-0.063494298	-0.646304271	-0.13302429	-2.330227585
ENSMUSG00000037971	1110032A03Rik	-0.586156636	-0.641514099	-0.34712652	-2.013254755
ENSMUSG00000062319	Gm10115	-2.918555234	-0.637207882	0.618231662	-0.234189331
ENSMUSG00000032086	Bace1	-0.601423926	-0.635289452	-0.20822172	-2.125175159
ENSMUSG00000025260	Hsd17b10	-0.935942259	-0.634486313	-0.46995232	-2.032959805
ENSMUSG00000031997	Trpc6	-0.272972934	-0.631131614	-0.25602676	-2.153090071
ENSMUSG00000038119	Cdon	-0.796881364	-0.630446683	-0.52882595	-2.336977687
ENSMUSG00000080811	Gm14513	0.102642473	-0.629564574	-0.28242163	-2.725070264
ENSMUSG00000082192	Gm14719	-0.943389237	-0.607630222	-0.34174058	-2.883593862
ENSMUSG00000079564	Gm11149	-1.674474493	-0.606490835	-1.25953173	-2.079331225
ENSMUSG00000091437	-	-2.825260221	-0.606364492	-4.78560509	-1.893339693
ENSMUSG00000041729	Coro2b	-0.529139815	-0.605076599	0.054829833	-2.106431287
ENSMUSG00000032548	Slco2a1	-0.404395663	-0.604027806	-0.10816049	-2.162240096
ENSMUSG00000087151	Gm14022	-3.10308377	-0.601188714	-0.96903881	-0.26172348
ENSMUSG00000060125	-	-3.79479488	-0.594639589	-4.26799549	-0.643935594
ENSMUSG00000081750	Gm4995	-0.616899425	-0.593259024	-0.48889852	-2.072477418
ENSMUSG00000031980	Agt	-2.853844237	-0.585514551	-1.63798659	-2.217268187

ENSMUSG00000039585	Myo9a	-0.40005234	-0.585054224	-0.37153032	-2.240076661
ENSMUSG00000032134	Muc16	0.027266354	-0.582162139	-0.2592117	-2.461054045
ENSMUSG00000090963	Gm17655	-0.487800195	-0.581582932	-0.97028213	-2.316858223
ENSMUSG00000079361	-	1.974791392	-0.5801685	1.688501517	-2.048935204
ENSMUSG00000038775	Vill	-0.292380276	-0.577431496	0.054307262	-2.419307006
ENSMUSG00000035776	Cd99l2	-0.596897622	-0.573041279	-0.42459841	-2.013319058
ENSMUSG00000032547	Ryk	-0.543762308	-0.571848561	-0.29210213	-2.098873175
ENSMUSG00000031274	Col4a5	-0.879792318	-0.570169618	-0.59237036	-2.179151683
ENSMUSG00000059237	Ppp1r2-ps4	-0.070671575	-0.569125903	-0.23852241	-2.273163141
ENSMUSG00000053310	Nrgn	-0.80204914	-0.568441713	0.423073465	-2.125459889
ENSMUSG00000001946	Esam	-0.194181699	-0.568123506	0.004420653	-2.070543863
ENSMUSG00000041658	Rragb	-0.596934801	-0.56437096	-0.31530766	-2.242797891
ENSMUSG00000006241	Ccdc159	-0.648511291	-0.562210885	-0.33214248	-2.781133429
ENSMUSG00000085718	Rpl9-ps3	-3.847306583	-0.557658095	-4.86020833	-0.557658095
ENSMUSG00000031938	4931406C07Rik	-0.510695365	-0.555876255	-0.49520106	-2.244298171
ENSMUSG00000080942	Gm14556	-0.137524638	-0.555004927	0.151072668	-2.848818534
ENSMUSG00000002010	Idh3g	-0.811953234	-0.554732908	-0.47706688	-2.005915765
ENSMUSG00000032060	Cryab	-0.875976324	-0.552999354	-0.36020086	-2.064756905
ENSMUSG00000031409	Tceal6	-0.55341117	-0.548589238	-0.23346254	-3.016557739
ENSMUSG00000047168	Gm6684	-2.549445047	-0.547633185	-0.33942084	-0.936854415
ENSMUSG00000032570	Atp2c1	-0.434347861	-0.542929847	-0.48954664	-2.041078691
ENSMUSG00000059401	Mamld1	-0.326858718	-0.54155109	-0.16624053	-2.301591691
ENSMUSG00000039952	Dag1	-0.601315612	-0.540316362	-0.24326331	-2.088500346
ENSMUSG00000032349	Elov15	-0.511235789	-0.534867387	-0.25217547	-2.131913161
ENSMUSG00000009471	Myod1	-3.756495145	-0.533823942	-2.41446901	0.092012021
ENSMUSG00000000881	Dlg3	-0.338226273	-0.527840471	-0.44155972	-2.029466451
ENSMUSG00000079334	Nat6	-0.596816849	-0.526962847	0.013533498	-2.16749827
ENSMUSG00000042271	Nxt2	-0.343986463	-0.523174275	-0.54751528	-2.10301794
ENSMUSG00000082755	Gm8692	-0.2360728	-0.522399365	-0.07641498	-2.630041567
ENSMUSG00000000168	Dlat	-0.82836617	-0.519271181	-0.6694817	-2.026361258
ENSMUSG00000028989	Angptl7	-2.384646598	-0.517767607	-1.64268719	0.135367292
ENSMUSG00000081996	Gm7153	0.236893367	-0.516476847	0.220851576	-2.096663719
ENSMUSG00000032249	Anp32a	-0.590312987	-0.514647511	-0.21768948	-2.180428435
ENSMUSG00000082873	Gm15367	-0.561582479	-0.51458606	-0.81509442	-3.481337547
ENSMUSG00000084331	Gm8163	-0.780784792	-0.510373932	0.064792949	-3.701692831
ENSMUSG00000051373	Ppapdc3	-2.389800017	-0.509304319	-0.94835854	-0.277148477
ENSMUSG00000081614	Gm9436	-0.032200558	-0.50741168	-0.2733008	-2.806437489
ENSMUSG00000048970	C1galt1c1	-2.128525013	-0.505235308	-3.20770507	-1.998634345
ENSMUSG00000083019	Gm6222	-0.549249508	-0.504268812	-0.39338423	-2.332889695
ENSMUSG00000031760	Mt3	-3.233468468	-0.494262789	-0.20680145	-0.389313134
ENSMUSG00000057969	Sema3b	-0.441612966	-0.493377142	-0.2620227	-2.139873076
ENSMUSG00000025860	Xiap	0.040257188	-0.486199844	0.029987196	-2.017917542
ENSMUSG00000081803	Gm15282	-1.747162599	-0.478447012	-1.69915107	-3.781939312
ENSMUSG00000069986	Gm8054	-4.558746966	-0.477937352	-5.99638382	0.049175401
ENSMUSG00000063488	Zfp167	-0.133655338	-0.477757974	-0.56288772	-2.043832364
ENSMUSG00000043587	Acpl2	-0.554879425	-0.474878192	-0.3910961	-2.103911521
ENSMUSG00000010064	Slc38a3	-2.90316908	-0.470487192	-1.85314602	-1.24729364
ENSMUSG00000019478	Rab4a	-0.471997896	-0.469969283	-0.18979606	-2.139889564



ENSMUSG00000079508	Apoo	-0.654533221	-0.469807762	-0.33259348	-2.678699134
ENSMUSG00000032062	2310030G06Rik	-0.350785731	-0.468189609	-0.30256403	-2.21648504
ENSMUSG00000080847	Gm4773	0.016248666	-0.467085401	0.207602235	-2.934568338
ENSMUSG00000032392	Parp16	-0.605492758	-0.459148936	-0.24905231	-2.33468283
ENSMUSG00000032314	Etfa	-0.60519471	-0.456522351	-0.66178001	-2.662989809
ENSMUSG00000074501	Gm5612	-0.876057907	-0.456205858	-0.08093461	-6.647953354
ENSMUSG00000084079	Gm11631	-3.04397503	-0.453398905	-4.01484107	-1.98814295
ENSMUSG00000071708	Sms	-0.515204876	-0.452689392	-0.4704621	-2.005481891
ENSMUSG00000034487	Kdelc2	-0.22329026	-0.449414894	-0.14986388	-2.232633676
ENSMUSG00000057626	Gm5621	-0.316117759	-0.449235906	-0.06089901	-2.172984697
ENSMUSG00000066771	Gm5614	-0.077497749	-0.448699377	-0.05816042	-4.792458618
ENSMUSG00000031059	Ndufb11	-0.561278331	-0.442037013	-0.26351911	-2.232136729
ENSMUSG00000081570	Gm12192	-2.131587932	-0.43903999	-0.73650486	0.269600576
ENSMUSG00000090802	Gm8074	-2.281816925	-0.438154431	-2.11977146	0.050598877
ENSMUSG00000019933	2310015B20Rik	-2.464405942	-0.434693579	-1.20305212	-3.140830688
ENSMUSG00000025794	Rpl14	-0.086678445	-0.430161156	-0.08981675	-2.330654896
ENSMUSG00000051851	Cxx1c	-0.424957962	-0.430016621	-0.01223492	-2.527090502
ENSMUSG00000025656	Arhgef9	-0.805884382	-0.428988674	-0.92832306	-2.046615163
ENSMUSG00000083554	Gm6645	0.539528126	-0.427527521	-0.45543288	-2.246304668
ENSMUSG00000083200	Gm15066	0.287354448	-0.419889097	-0.12938495	-3.74774599
ENSMUSG00000090483	Tmem29	-0.069257949	-0.419043119	0.265322329	-2.085634803
ENSMUSG00000010047	Hyal2	-0.541640181	-0.41689653	-0.05756944	-2.03371471
ENSMUSG00000031245	Hmgn5	-0.289472356	-0.416881486	-0.63205041	-2.061689989
ENSMUSG00000040146	Rgl3	-0.298701668	-0.416330192	0.064270571	-2.027528486
ENSMUSG00000032121	Tmem218	-0.135282467	-0.415661168	-0.22201208	-2.077692506
ENSMUSG00000078982	Gm11025	-2.316762674	-0.414060833	-1.45187239	-2.146172215
ENSMUSG00000027470	Mylk2	-2.048127881	-0.409296771	-1.2323936	0.014470286
ENSMUSG00000084060	Gm16412	0.680708394	-0.406482506	0.399862131	-3.440425415
ENSMUSG00000031246	Sh3bgrl	-0.001227912	-0.405733092	-0.29423748	-2.03329607
ENSMUSG00000019359	Gdpd2	-1.181033575	-0.403219754	-0.28590412	-2.54008245
ENSMUSG00000031320	Rps4x	-0.141792107	-0.400633357	-0.24816153	-2.076515372
ENSMUSG00000082498	Gm12937	-2.681713115	-0.398804201	-0.81181094	-0.176026496
ENSMUSG00000066475	Gm10268	-2.145061341	-0.390807253	-1.9199445	0.361798153
ENSMUSG00000009927	Rps25	-0.165750343	-0.390127129	-0.24631175	-2.35546402
ENSMUSG00000045775	Slc16a5	-2.546961574	-0.388956909	-1.48157688	0.16493526
ENSMUSG00000031134	RbmX	-0.394081621	-0.388523025	-0.36349482	-2.074892911
ENSMUSG00000084185	Rplp1-ps1	-0.569979829	-0.384310592	-0.45579992	-5.254401298
ENSMUSG00000048592	Gm5946	-0.08832179	-0.382973116	-0.40922601	-2.019557785
ENSMUSG00000032320	Rcn2	-0.161507861	-0.382709264	-0.20462488	-2.162246485
ENSMUSG00000035967	Ddx26b	-0.454590187	-0.381924796	-0.35637561	-2.114523334
ENSMUSG00000044037	Als2cl	-0.658689641	-0.377674522	-0.10766582	-2.101622774
ENSMUSG00000082115	Gm15490	0.407782073	-0.375159054	-2.25264303	0.646806843
ENSMUSG00000053040	Aph1c	0.085496683	-0.371321506	-0.00620269	-2.145395328
ENSMUSG00000082650	Gm15358	-2.250012459	-0.368892462	-0.65950188	0.245254539
ENSMUSG00000081896	Gm5389	-0.565097904	-0.366967106	-0.5737731	-2.686998081
ENSMUSG00000080862	Gm14523	-3.782920803	-0.365281082	-0.19935925	-1.85476302
ENSMUSG00000032340	Neo1	-0.59466408	-0.359339397	-0.19319341	-2.119262698
ENSMUSG00000032422	Snx14	-0.339867061	-0.357464686	-0.17896379	-2.116780587

ENSMUSG00000030785	Cox6a2	-2.001458871	-0.355357854	-1.20065086	0.00920716
ENSMUSG00000058914	C1qtnf3	-2.97862709	-0.345813798	-1.2178783	-0.085697623
ENSMUSG00000000167	Pih1d2	0.127613557	-0.340472662	-0.64380078	-2.832593179
ENSMUSG00000083823	Amd-ps1	0.399520931	-0.320202077	0.054827957	-2.668937288
ENSMUSG00000080758	Gm5392	0.033981955	-0.31861839	-0.30497784	-4.908342178
ENSMUSG00000083621	Gm14586	-0.306832683	-0.305945261	-0.26514835	-2.532324898
ENSMUSG00000083346	Gm8260	-0.001604296	-0.301131032	0.06678178	-4.532772016
ENSMUSG00000007815	Rhoa	-0.152759421	-0.299073025	-0.16718924	-2.013408155
ENSMUSG00000032558	Nphp3	-0.387593481	-0.294388785	-0.18088696	-2.160369181
ENSMUSG00000084186	Rpl36-ps10	-0.21600727	-0.294159155	-0.78879266	-4.220438308
ENSMUSG00000048709	Gm8666	-0.124041281	-0.293994925	-0.05331382	-2.174301027
ENSMUSG00000080740	Gm15013	-0.018718302	-0.290554985	-0.37403804	-5.581955354
ENSMUSG00000081164	Gm8722	-0.466787231	-0.289700598	-0.34031249	-2.023383089
ENSMUSG00000084193	Gm6823	0.586143336	-0.28712705	0.181650918	-2.410867951
ENSMUSG00000083250	Gm5403	-0.667159276	-0.286109518	0.00811173	-3.078923468
ENSMUSG00000074408	-	-0.612769318	-0.276450937	-0.38614581	-2.346172547
ENSMUSG00000032403	2300009A05Rik	-0.365135658	-0.27198136	-0.1922369	-2.677907578
ENSMUSG00000080777	Gm15365	-0.290433234	-0.260307789	-0.52177343	-2.574182495
ENSMUSG00000083375	Gm15057	-0.747404866	-0.258934261	-1.02458068	-2.94363502
ENSMUSG00000024471	Myot	-2.621524725	-0.253097649	-1.90418361	0.529783611
ENSMUSG00000081898	Gm5754	0.481686053	-0.248322819	-0.61732135	-2.391077546
ENSMUSG00000049536	Tceal1	-0.481321535	-0.247492761	-0.60910589	-2.050608595
ENSMUSG00000001661	Hoxc6	-2.093948885	-0.246625628	-2.5459456	-0.45361161
ENSMUSG00000045519	Zfp560	-0.271548105	-0.245040211	-0.46627888	-2.649426214
ENSMUSG00000016239	Lonrf3	-0.547201414	-0.243124395	-0.30660229	-2.652057207
ENSMUSG00000050394	Armcx6	-0.438282438	-0.232023936	-0.46604489	-2.080458577
ENSMUSG00000081763	Gm9435	0.099394383	-0.231922577	-0.13112082	-3.157931374
ENSMUSG00000031355	Arhgap6	-0.05890942	-0.226924487	-0.09981814	-2.046726239
ENSMUSG00000032491	Nradd	-0.306873917	-0.226603529	0.296403111	-2.143089584
ENSMUSG00000081456	Gm7781	-0.513309418	-0.225553709	-0.7323556	-3.52684291
ENSMUSG00000043219	Hoxa6	-2.618302232	-0.224460844	-1.57254965	0.105331379
ENSMUSG00000081263	Gm14859	0.069897202	-0.223244418	0.058968533	-3.692887601
ENSMUSG00000083016	Gm11703	-1.885001438	-0.220031548	-2.39430571	-0.142389242
ENSMUSG00000087626	Gm15050	0.298694773	-0.214873027	-1.83100485	-2.417310877
ENSMUSG00000082682	Gm15349	-2.193942463	-0.214320421	0.302500686	0.172197333
ENSMUSG00000084031	Gm7416	0.137298155	-0.214212984	-0.23089327	-2.294650081
ENSMUSG00000083288	Csnk2a1-ps	0.206627876	-0.203427004	-0.33676357	-4.636097206
ENSMUSG00000037315	Phf16	0.176052855	-0.203418847	-0.08257236	-2.150921348
ENSMUSG00000082076	Gm8659	-0.731703918	-0.198457501	-0.64040487	-2.043984064
ENSMUSG00000080974	Gm9009	-0.272804411	-0.197469219	-0.40222581	-7.441065663
ENSMUSG00000043929	Klhl15	0.283523053	-0.189823824	-0.10426967	-2.061592683
ENSMUSG00000083982	Gm14650	-0.123656669	-0.180963647	-0.43331656	-4.89386285
ENSMUSG00000042293	Gm5617	-0.753270685	-0.178611718	-0.41715928	-2.375526488
ENSMUSG00000081897	Gm15067	0.270387177	-0.169916759	0.41650261	-4.647723196
ENSMUSG00000082625	Gm15204	0.157937032	-0.16745124	-0.24859921	-2.256064876
ENSMUSG00000031380	Figf	-0.054132835	-0.164944773	0.349318525	-2.282818018
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ENSMUSG00000032251	Irak1bp1	0.415848952	-0.151885722	0.164516195	-2.010557515
ENSMUSG00000025271	Pfkfb1	-0.55533096	-0.148798706	-0.46861036	-2.398711854
ENSMUSG00000020990	Cdk11	-1.350945625	-0.142466636	-2.29778934	-0.298275174
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ENSMUSG00000063018	2010204K13Rik	-0.395149788	-0.134382354	-0.22645218	-2.328284299
ENSMUSG00000082549	Gm14813	0.113538729	-0.130301137	0.003242033	-2.735688966
ENSMUSG00000044550	Tceal3	-0.469358376	-0.121849829	-0.62916017	-2.447160016
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ENSMUSG00000082222	Gm14865	-0.597825585	-0.095109178	-0.95199241	-2.278163556
ENSMUSG00000031214	Ophn1	-0.068859124	-0.092910531	-0.44197008	-2.491747502
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ENSMUSG00000040867	Begain	-2.125362248	-0.07867882	0.180050346	-0.215576854
ENSMUSG00000071083	Gm10311	-0.88241812	-0.076736406	-2.56376363	-0.013968548
ENSMUSG00000082144	Gm12788	-2.095913735	-0.076507129	0.478935969	-0.998816923
ENSMUSG00000090771	-	-0.254626505	-0.075651402	0.939540409	-2.481860564
ENSMUSG00000025141	Myadml2	-3.144679839	-0.071299256	-1.49204763	-0.453877262
ENSMUSG00000079593	Gm14597	-0.055999027	-0.06514814	0.228458594	-2.407690006
ENSMUSG00000080788	Gm7841	0.113544764	-0.064262307	-0.06703714	-7.172440227
ENSMUSG00000089996	Tmsb15b2	-0.43742106	-0.063269793	-1.80926008	-2.315257296
ENSMUSG00000084303	Gm8216	-0.139693469	-0.057600397	-0.39202693	-2.655015473
ENSMUSG00000081972	Gm16397	-1.552837523	-0.057521674	-0.02441386	-3.14232034
ENSMUSG00000025265	Fgd1	-0.180619599	-0.041754608	-0.00407708	-2.070506191
ENSMUSG00000083911	Gm4342	-0.107871777	-0.038137876	-0.01665842	-2.962784435
ENSMUSG00000079435	Rpl36a	-0.11558513	-0.037827731	0.066012346	-2.164595305
ENSMUSG00000081142	Gm15497	-0.600699934	-0.032151136	-2.71427319	-1.133207419
ENSMUSG00000059252	Tpt1-ps5	-0.205081461	-0.029751162	-0.29623324	-2.597652173
ENSMUSG00000000049	Apoh	-3.779077105	-0.023651245	-3.7053999	0.163007157
ENSMUSG00000071680	Gm7123	0.389862434	-0.018457708	-0.23808712	-3.72975308
ENSMUSG00000039661	Dusp26	-3.238101355	-0.014143475	-2.28428688	-0.757142005
ENSMUSG00000081762	Gm13738	-2.507930953	-0.003006807	-1.97856583	-0.658365057
ENSMUSG00000003053	Cyp2c29	-1.42618423	0	-5.5996152	0
ENSMUSG00000032081	Apoc3	-1.594171106	0	-3.77487695	0.128650929
ENSMUSG00000061958	Gm14851	-2.392070082	0	-4.64740864	0
ENSMUSG00000063751	Gm13939	-2.453924555	0	-4.54858439	0.197383574
ENSMUSG00000066252	-	-1.327399946	0	-5.38349237	0
ENSMUSG00000069324	Gm5096	-1.996489985	0	-4.61486641	0
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ENSMUSG00000083434	Gm12760	-3.494197974	0	-3.49419797	0.257620164
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ENSMUSG00000090372	-	-2.148543695	0	-2.58868811	0
ENSMUSG00000092015	-	-2.566094235	0	-2.56609424	0.151482187
ENSMUSG00000062380	Tubb3	0.101193143	0.000673763	0.40543701	-2.021630303
ENSMUSG00000001986	Gria3	0.052763954	0.016250341	0.138756785	-2.177911567
ENSMUSG00000025991	Cps1	-1.170892885	0.025776392	-7.3752436	0
ENSMUSG00000071748	Gm14698	-0.19858985	0.027621291	-0.08057758	-2.039309933
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ENSMUSG00000082623	Gm15493	-0.13438224	0.029892712	0.084836479	-2.221084545
ENSMUSG00000083595	Gm9200	-0.277634012	0.039099222	-0.38371707	-2.380992582
ENSMUSG00000079418	Atg4a	0.259560114	0.041767374	-0.28473603	-2.249050914
ENSMUSG00000081308	Gm14480	-0.205038122	0.043195038	-0.3652889	-3.361009949
ENSMUSG00000079480	Pin4	0.075247701	0.044410178	-0.04079216	-2.399845472
ENSMUSG00000047746	Fbxo40	-2.029217505	0.045358106	-1.53856638	0.39181074
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ENSMUSG00000048758	Rpl29	0.217181934	0.0612445	0.149501195	-7.690192635
ENSMUSG00000082413	Gm13401	-0.064624215	0.063720479	-0.42678137	-2.786447377
ENSMUSG00000083971	Gm5943	0.150546587	0.071618082	-0.25130022	-2.31212215
ENSMUSG00000035540	Gc	-2.010368093	0.082519073	-3.04378647	0.078578959
ENSMUSG00000031105	Slc25a14	-0.168963751	0.088793162	-0.03796227	-2.420696117
ENSMUSG00000059481	Plg	-1.344033092	0.097845788	-6.377723	0.095101562
ENSMUSG00000081568	Gm15032	-0.344641408	0.104969632	-0.30478736	-5.709297402
ENSMUSG00000081473	Gm4853	-0.497611395	0.112066621	-0.35525133	-2.117020067
ENSMUSG00000082336	Gm8401	0.401525094	0.112599281	0.087600855	-2.385448435
ENSMUSG00000085116	Gm2735	-0.025437844	0.137285778	-0.20161357	-8.00136662
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ENSMUSG00000033831	Fgb	-2.325089901	0.158741597	-2.3250899	0
ENSMUSG00000081217	Gm15268	0.714576335	0.167093839	0.297888659	-3.143523878
ENSMUSG00000066592	Gm7589	-0.106930586	0.173631822	-0.18232135	-2.743745711
ENSMUSG00000082032	Gm12271	-2.093196009	0.174916596	-1.54299976	-2.135748776
ENSMUSG00000083166	Gm8648	0.085851829	0.175182414	-0.11370327	-7.139234129
ENSMUSG00000084125	Gm8757	0.02278315	0.175443336	-0.84356182	-2.296084792
ENSMUSG00000031146	Plp2	0.146827413	0.176161522	0.101645857	-2.049329329
ENSMUSG00000085226	Gm7855	1.463500854	0.181397949	-0.92696585	-2.47432819
ENSMUSG00000070531	Wfdc6b	-2.143336463	0.2020214	-0.95910901	-0.017255102
ENSMUSG00000083362	Gm8606	0.122518317	0.205370644	-0.04995513	-4.667545882
ENSMUSG00000001134	Uxt	0.139556803	0.207863672	0.124733097	-2.107380569
ENSMUSG00000084216	Gm7973	0.356789234	0.216049728	0.407707821	-2.754139244
ENSMUSG00000081222	Gm15173	-0.171057352	0.229267455	0.163820456	-5.084199071
ENSMUSG00000081739	Mdm4-ps	0.262125606	0.233352997	0.107019808	-2.177082902
ENSMUSG00000082776	Gm7061	0.167555355	0.252413283	0.106825537	-3.298422386
ENSMUSG00000074336	Apoc4	-2.069840995	0.255249335	-4.0716708	0.266141268
ENSMUSG00000082488	1700119I11Rik	-5.2367995	0.264945644	-2.2554548	0.712945956
ENSMUSG00000081748	Gm14870	0.122146635	0.272830396	-0.96491127	-3.339369474
ENSMUSG00000081159	Gm6023	0.125275373	0.276849264	0	-2.798343235
ENSMUSG00000082660	Gm14612	-0.360067554	0.281145862	-0.45928008	-2.006553728
ENSMUSG00000032083	Apoa1	-3.386497823	0.282971117	-4.66598799	0
ENSMUSG00000045694	Gm4997	0.27481558	0.31616157	-0.4270198	-5.452977366
ENSMUSG00000083551	Gm14516	0.98023305	0.329257601	0.059480099	-2.428927591
ENSMUSG00000081613	Gm12109	-3.953891212	0.329338334	-5.9892391	0.344618325
ENSMUSG00000023235	Cel25	-2.241708098	0.336036745	-1.17998666	1.053292882
ENSMUSG00000067653	Ankrd23	-2.437454091	0.34276043	-1.91057811	0.812060169
ENSMUSG00000049493	Pls1	0.313369058	0.364654677	-0.06961245	-2.077759689
ENSMUSG00000082912	Gm8770	0.777572712	0.396216945	0.482709123	-2.11497314
ENSMUSG00000090602	Gm5611	0.362406326	0.423779908	0.172851718	-2.010968058
ENSMUSG00000081350	Gm5388	0.17912022	0.430436227	0.204176521	-3.565997339

ENSMUSG00000085898	Gm6689	-3.328514498	0.459600535	-4.77355265	0.258909621
ENSMUSG00000091804	-	-2.462692219	0.461155188	-0.44934826	-0.012805229
ENSMUSG00000025386	Pde6g	-4.271780703	0.467183959	-4.40431391	-0.621067719
ENSMUSG00000082054	Psm6-ps	0.000602425	0.476030757	0.298596696	-2.201388011
ENSMUSG00000080774	Gm9143	0.267744144	0.479834931	-1.10760115	-3.229085494
ENSMUSG00000083906	Gm15186	0.381774644	0.494099278	-0.05950943	-2.520931484
ENSMUSG00000063816	Gm4987	-0.229869888	0.509332075	0.362121988	-2.261684227
ENSMUSG00000081331	Gm15151	-0.544655911	0.511729134	0.34866974	-3.735359702
ENSMUSG00000061486	Gm5161	0.096255643	0.518795305	0.51621012	-3.875806622
ENSMUSG00000090331	Gm17199	-3.576002045	0.545902039	-3.57600205	0.577286461
ENSMUSG00000082360	Gm8814	0.050081493	0.548543628	-0.15348157	-5.096490321
ENSMUSG00000082464	Rab9b-ps1	0.186363385	0.586770973	-0.54551465	-4.618262218
ENSMUSG00000036216	Leap2	-2.978896968	0.594933535	-1.34583349	0
ENSMUSG00000084842	Pabpc1l2b-ps	-0.711640294	0.596578773	-3.14902895	-0.45372189
ENSMUSG00000081933	Gm14767	0.40704999	0.601421151	-0.03940415	-2.143262751
ENSMUSG00000066829	Zfp810	0.436991364	0.601862316	0.113544379	-2.155302804
ENSMUSG00000030359	Pzp	-1.212531987	0.607998317	-4.00169179	1.331731662
ENSMUSG00000082810	Gm8682	0.433389835	0.621175907	0.432104746	-4.536705696
ENSMUSG00000070308	-	-0.059819951	0.62504565	-0.08790772	-3.557756882
ENSMUSG00000082669	Gm5393	0.02664578	0.638106469	-0.09949571	-3.103628559
ENSMUSG00000028356	Ambp	-3.471297868	0.656880733	-5.00100772	0.264022314
ENSMUSG00000084142	Gm9103	0.421009782	0.659970317	0.364943092	-4.546755841
ENSMUSG00000081373	Gm16436	0.53831623	0.669672311	0.19299385	-2.455425142
ENSMUSG00000081084	Gm5638	0.469841088	0.696081206	0.175224084	-4.503625914
ENSMUSG00000083908	Gm6447	-1.006097589	0.723040835	0.301092072	-2.913838632
ENSMUSG00000044794	9330133O14Rik	0.451589552	0.737524835	-0.09227069	-2.242656424
ENSMUSG00000081678	Gm12959	-2.665222686	0.738453875	-0.73583405	0.447074736
ENSMUSG00000078875	Gm14419	-1.672456002	0.747966162	-2.69871537	0.224530884
ENSMUSG00000079538	-	-2.501923147	0.764799835	1.903265182	-0.100535829
ENSMUSG00000044820	AY074887	0.410819884	0.771690659	-2.97195749	-0.612228868
ENSMUSG00000087239	Gm7613	0.63343204	0.808783604	0.378710746	-2.546455149
ENSMUSG00000078893	-	-1.750585162	0.85384923	-3.61036312	0.03457612
ENSMUSG00000028307	Aldob	-4.398255936	0.881525552	-3.87922384	-0.154845038
ENSMUSG00000084361	Gm8202	0.560289894	0.895187266	0.280635621	-4.074961816
ENSMUSG00000082337	Gm14723	0.738772854	0.920923634	-0.32290984	-2.730418237
ENSMUSG00000022868	Ahsg	-3.559907096	0.961243213	-3.77861322	0.63909846
ENSMUSG00000026418	Tnni1	-2.686862781	0.965117106	-2.40532234	0.737476044
ENSMUSG00000064179	Tnnt1	-3.085034066	1.008123887	-2.08073576	1.24711215
ENSMUSG00000082954	Gm15504	-1.197407443	1.092260937	-2.155937	-1.568892786
ENSMUSG00000081008	Gm13314	-0.86973763	1.121375712	-2.28007477	0.719428914
ENSMUSG00000082541	Gm9095	-0.441121247	1.189385628	1.94830501	-2.725268189
ENSMUSG00000091406	-	-2.785975242	1.215430102	-2.32946578	0
ENSMUSG00000081230	Gm9097	-0.441278519	1.26309745	1.946169892	-2.725586211
ENSMUSG00000049641	Vgll2	-1.817140232	1.337711092	-5.91181273	0.823046589
ENSMUSG00000081030	Gm12704	-2.427698982	1.360483167	-4.62012655	0.750961292
ENSMUSG00000025172	Ankrd2	-2.810165681	1.369137006	-2.96308473	1.311357792
ENSMUSG00000062540	-	-0.339623217	1.506344974	-2.73724423	1.1529213
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ENSMUSG00000086495	Gm13778	-2.095565931	1.525758064	-2.55213752	1.295115744
ENSMUSG00000080796	Gm9159	-2.507875832	1.539535311	-2.99031592	0.036083516
ENSMUSG00000081670	Gm15697	-1.173129363	1.623147766	-2.49808901	1.938006265
ENSMUSG00000082204	Gm7722	0.688430709	1.638380346	-0.37278172	-3.597065631
ENSMUSG00000078370	Gm6316	-0.868929053	1.686684738	-2.94470052	-1.27601514
ENSMUSG00000091786	Gm8425	-2.20947575	1.992109962	-0.19780654	1.203637886
ENSMUSG00000081136	Gm12990	5.224687237	-4.135244152	-0.47130608	-4.670315341
ENSMUSG00000069475	Gm6020	2.396233218	-4.074102919	4.233717594	-1.588545615
ENSMUSG00000084897	Gm14226	8.152685958	-3.556751975	-0.0098088	-0.910929695
ENSMUSG00000073028	Igkv4-71	1.009321217	-2.052239182	-0.54285217	2.122171422
ENSMUSG00000060566	Rpl21-ps3	2.193704648	-1.959979025	-0.18717611	-2.329435658
ENSMUSG00000084069	Gm12306	0	-1.892080109	2.386181872	-2.324241602
ENSMUSG00000084149	Gm12944	-2.293099616	-1.440132149	-2.98862622	4.203293497
ENSMUSG00000040759	Cmtm5	-0.357762136	-1.110610465	3.001628715	-3.381567567
ENSMUSG00000079255	-	1.479992479	-0.845456359	2.139908281	-2.327818663
ENSMUSG00000063821	Dupd1	-3.326984646	-0.32496264	-1.44242435	3.974789015
ENSMUSG00000090274	-	-0.720736589	0	-2.21000161	6.364672227
ENSMUSG00000005681	Apoa2	-5.781091087	0.003435702	-6.48812291	2.332090105
ENSMUSG00000091315	Gm17214	-2.516747906	0.321318278	4.983119625	0.544529058
ENSMUSG00000075515	-	-2.49613684	0.54204441	-1.64072952	4.192174359
ENSMUSG00000034339	Gm5689	-2.386585587	0.566364467	-1.13889313	2.145822589
ENSMUSG00000081543	Gm12733	-3.495989875	0.97870126	-1.35260035	2.566201321
ENSMUSG00000028001	Fga	-4.399133505	1.333103198	-0.36925825	3.37546009
ENSMUSG00000082816	Gm11953	-6.623912965	1.357509629	-7.08614889	2.08773402
ENSMUSG00000006179	Prss16	-3.508860272	1.364002984	-1.00715645	2.050650982
ENSMUSG00000033860	Fgg	-3.693072834	1.736897952	-1.23686485	2.024745831
ENSMUSG00000027220	Syt13	-2.649251942	1.808316282	-0.95011631	2.588903431
ENSMUSG00000083126	Gm14109	-2.314686681	2.242777868	-1.18193395	2.573849575
ENSMUSG00000060459	Kng2	-1.890374226	2.411010386	-2.86744541	-0.479452407
ENSMUSG00000079281	-	-1.264759096	2.582902786	-3.03087456	0
ENSMUSG00000022875	Kng1	-2.77056917	2.853417442	-4.37331729	0.889293597
ENSMUSG00000023083	H2-M10.2	-4.179878086	2.856081357	0.152850097	2.874633707
ENSMUSG00000025014	Dntt	-5.310582552	3.006877492	-1.78901568	2.480895726
ENSMUSG00000033027	Klrc3	0.692401549	3.244509921	-2.19572828	2.223291001
ENSMUSG00000073375	Lrrc30	-5.248109495	3.546380158	-4.23133163	2.917964808
ENSMUSG00000080999	Gm11336	-2.830768573	4.031068718	-2.4245916	0.636445048
ENSMUSG00000013936	Myl2	-4.40414698	5.310478119	-7.03367226	6.093366324
ENSMUSG00000061615	Hist1h2ab	-1.943433784	5.849693418	-3.25670859	2.332469068
ENSMUSG00000083993	Gm14398	-5.510572951	6.353901479	-4.96269003	7.388702334
ENSMUSG00000090265	Gm9550	2.211156162	-1.94949703	-0.58012908	-1.906393746
ENSMUSG00000067224	Gm3695	-0.177287651	-1.942273497	4.730402311	1.099028495
ENSMUSG00000082271	Gm12217	2.53497423	-1.620318868	0.092502327	-0.263097203
ENSMUSG00000013611	Snx31	4.336935102	-1.452819996	-1.27027887	-0.132280443
ENSMUSG00000066714	Gm8062	-0.514899204	-1.344838188	-0.69611736	2.128388164
ENSMUSG00000076548	Igkv4-69	2.311525401	-1.044217126	-0.95819166	0.288384388
ENSMUSG00000090941	Gm17212	-1.153309301	-1.03657153	5.412092919	-0.017318075
ENSMUSG00000085812	Gm15843	-0.096258603	-0.970136639	-0.38352675	2.195352724
ENSMUSG00000030345	Dyrk4	3.69910523	-0.937820749	1.408116782	0.448393592

ENSMUSG00000082357	Gm13542	2.493303278	-0.894862344	2.152130917	0.610351122
ENSMUSG00000058700	Gm8724	-1.169348499	-0.777365426	-0.21008653	3.207984361
ENSMUSG00000082123	Gm16149	2.104698528	-0.666923799	3.177717804	2.768729341
ENSMUSG00000083922	Gm3835	0.421528864	-0.630340923	2.113486834	-0.595393742
ENSMUSG00000084143	Gm13400	2.121131398	-0.625728685	3.348680864	0.217566112
ENSMUSG00000083173	Gm13064	-0.15961627	-0.579571187	6.379092819	-1.505942872
ENSMUSG00000089728	Clec2f-ps	2.116479053	-0.574953065	2.756519389	1.572180079
ENSMUSG00000020310	Madcam1	2.675128457	-0.519809341	3.582429501	1.079384329
ENSMUSG00000076612	Ighg2c	-0.421948051	-0.517399934	-0.52815703	2.274133688
ENSMUSG00000059565	Gm5292	3.407085011	-0.423048345	1.2410509	-0.38137988
ENSMUSG00000079906	Gm15846	0.387861996	-0.416606943	3.213890396	-0.44997796
ENSMUSG00000056508	1700001K19Rik	2.872255858	-0.395175384	1.988214376	-0.573170086
ENSMUSG00000082753	-	-0.826635936	-0.312681436	3.357640023	1.560200987
ENSMUSG00000082904	-	-0.826635936	-0.312681436	4.347393001	1.00650983
ENSMUSG00000024857	Cabp2	-1.42015935	-0.264451158	2.819196078	3.718814526
ENSMUSG00000024353	2010001M09Rik	0.021253946	-0.250830713	0.164692664	2.006440212
ENSMUSG00000021983	Atp8a2	-0.475541873	-0.235737603	-0.06341887	4.7057368
ENSMUSG00000050241	Klre1	2.753118081	-0.228711178	1.396188976	0.125546137
ENSMUSG00000032611	1700102P08Rik	0.576719224	-0.206321685	3.10381048	-1.547985737
ENSMUSG00000078883	-	1.683619043	-0.166778421	1.257626125	3.306899146
ENSMUSG00000058613	Gm5062	1.376265172	-0.126765685	0.350962455	2.325859219
ENSMUSG00000091094	-	1.394809139	-0.084742308	1.205911177	4.083242535
ENSMUSG00000075014	Gm10800	-0.273637626	-0.044377739	2.320034132	0.027159367
ENSMUSG00000063885	Gm6498	0.038914612	-0.033134051	2.525709391	2.957991134
ENSMUSG00000087286	Gm9013	0.021516211	-0.023545311	-1.41233015	4.818504468
ENSMUSG00000085993	Gm15905	2.678932757	-0.020278798	0	-0.396969407
ENSMUSG00000072188	Gm10354	2.134631919	-0.018921687	2.981848991	0.587069142
ENSMUSG00000026931	1700019N19Rik	0	0	0	3.272796601
ENSMUSG00000078520	Gm13011	0	0	0	3.767358178
ENSMUSG00000079621	-	0	0	0	3.402435683
ENSMUSG00000082417	Gm13740	2.516868084	0	0.160600571	0
ENSMUSG00000082502	Gm12636	2.29658662	0	0.164089859	0
ENSMUSG00000083533	Gm13450	3.508352586	0	0	0
ENSMUSG00000084003	Gm15269	2.270023537	0	1.337197281	0.923209284
ENSMUSG00000084393	Gm14101	-0.192517394	0	4.224973282	0
ENSMUSG00000086242	-	2.483532046	0	0	0
ENSMUSG00000090915	-	2.096538489	0	1.859977497	0
ENSMUSG00000091348	-	-1.127369147	0	-1.12736915	2.37824248
ENSMUSG00000091410	Gm17150	0	0	0	4.835454213
ENSMUSG00000091441	Gm17387	0	0	2.724589158	3.009343589
ENSMUSG00000092159	-	-0.050127471	0	6.074566886	0.233254902
ENSMUSG00000006143	Upk3bl	0.764198362	0.013146236	1.317911817	3.12260487
ENSMUSG00000054215	Spr2k	0.55760391	0.038446808	0.146627013	2.813755639
ENSMUSG00000058773	Hist1h1b	1.684140556	0.057600473	0.220350862	3.448140846
ENSMUSG00000091897	Gm17019	2.934458972	0.065794754	3.141843505	1.142146981
ENSMUSG00000091666	-	1.265918949	0.123019057	3.564052327	0.239233048
ENSMUSG00000018919	Tm4sf5	2.182433153	0.152127965	-1.47865445	0.832383547
ENSMUSG00000028072	Ntrk1	2.559245858	0.201344773	1.684034647	0.371774494

ENSMUSG00000074629	4930518I15Rik	2.406592483	0.218438794	1.772498044	0.531453111
ENSMUSG00000084231	Gm11975	2.720472725	0.300609035	2.156711408	2.397701893
ENSMUSG00000056771	Gm10010	3.276904263	0.318359441	0.131169432	2.404759696
ENSMUSG00000091941	Gm7399	0.428444187	0.329613239	0.665021455	2.480335759
ENSMUSG00000073538	E330020D12Rik	2.148602964	0.341896744	1.592223421	1.106653554
ENSMUSG00000091255	Speer4e	2.657305295	0.35878218	2.808287639	1.003279749
ENSMUSG00000083427	Gm12007	2.327140318	0.38650819	0.740462048	-0.549196539
ENSMUSG00000086986	Gm12103	2.161256619	0.389266683	1.750990723	-0.351604548
ENSMUSG00000083193	4930595D18Rik	2.85719254	0.397561959	1.566808743	0.440072534
ENSMUSG00000074518	Gm10711	2.401271876	0.443058712	1.072602434	-0.057743972
ENSMUSG00000030017	Reg3g	2.470600703	0.464561373	2.069119473	1.613436221
ENSMUSG00000060747	Il28b	2.16845912	0.472156043	0.406143699	1.494379767
ENSMUSG00000053395	Cacng8	3.403947313	0.49510671	0.212886163	0.640055399
ENSMUSG00000091117	Gm9064	0.791027403	0.567925905	2.223270769	-0.922712741
ENSMUSG00000045471	Hcrt	3.234719771	0.569904204	-0.24391885	0
ENSMUSG00000076670	Ighv3-5	0.8825155	0.594933535	0.286257816	2.251388863
ENSMUSG00000003665	Has1	1.30758057	0.603915125	2.561076808	0.88938856
ENSMUSG00000081260	Gm13149	0.610113441	0.61410673	-0.26795521	2.141131926
ENSMUSG00000085300	Gm16345	-0.676826778	0.652957259	-0.54037345	2.300891005
ENSMUSG00000037974	Muc5ac	-0.107624454	0.656690765	0.415779595	2.00998427
ENSMUSG00000082202	Gm4910	2.120106407	0.668601144	0.178864458	-0.801123882
ENSMUSG00000071005	Ccl19	2.027042639	0.668698015	2.112171266	1.955255452
ENSMUSG00000081241	Gm14737	2.829502856	0.67382459	2.769603216	-0.448746528
ENSMUSG00000053821	Gm9922	1.590081733	0.712742349	2.488380344	0.408841743
ENSMUSG00000059128	Il28a	2.20525174	0.713933312	0.288385732	1.115552679
ENSMUSG00000022838	Eaf2	0.560163894	0.72313151	0.138053688	2.427272921
ENSMUSG00000084381	AA413626	2.028179655	0.726678945	1.103528252	-0.019874555
ENSMUSG00000033219	Gm9758	2.456706545	0.737611275	2.608995238	1.874159829
ENSMUSG00000084194	-	2.035727282	0.768367935	2.043797291	1.928822107
ENSMUSG00000078361	-	3.32741378	0.790708658	1.9668033	1.416958611
ENSMUSG00000050635	Spr2f	1.148827631	0.793357398	2.630836854	0
ENSMUSG00000078736	-	1.997860684	0.832400052	2.087058783	2.093471174
ENSMUSG00000069720	4930572O03Rik	2.231629828	0.844687013	1.993912183	2.431874879
ENSMUSG00000073208	Speer4c	2.083268513	0.849157398	2.461727624	1.675348771
ENSMUSG00000091875	-	3.015766781	0.852053162	1.462831578	0.119665347
ENSMUSG00000040627	Aicda	5.00558559	0.869341554	3.518297484	2.288800458
ENSMUSG00000057610	Ighv1-73	-0.941376585	0.88098876	0.540616266	3.172373642
ENSMUSG00000083842	Gm12485	2.007772174	0.885505075	0.80850233	0.467126984
ENSMUSG00000091272	Gm17641	1.682943989	0.886580743	2.14657019	1.581824962
ENSMUSG00000091723	Gm17366	1.501357601	0.886735817	2.486223859	1.527609827
ENSMUSG00000061947	Serpina10	0.884936302	0.940946971	0.875267026	2.025512656
ENSMUSG00000039531	Zufsp	2.063739386	0.946459471	0.726124971	1.292339597
ENSMUSG00000013928	Thap8	2.708312017	0.948527276	1.143771572	1.004178788
ENSMUSG00000039851	4932438H23Rik	0.395365465	0.954341519	0.161769295	3.164236233
ENSMUSG00000045232	Rln3	2.186999155	0.956627863	1.168985494	1.874293311
ENSMUSG00000079295	Klrbl-ps1	3.178139577	0.966226936	2.81521672	0.041440286
ENSMUSG00000040570	Rundc3b	1.062809027	0.966239047	0.702005938	2.253920386
ENSMUSG00000086265	Marcksl1-ps4	1.237765608	0.970862626	0.840770976	2.295447064



ENSMUSG00000059994	Fcrl1	1.437997841	0.971946443	1.045449818	2.153464994
ENSMUSG00000070708	Gtsf11	2.101422936	0.973843664	0.887826978	3.065705116
ENSMUSG00000063911	Tdgl1-ps2	0.563503149	0.974905911	-0.33232777	2.481886637
ENSMUSG00000089871	Speer7-ps1	1.540465521	0.976240289	2.634389788	2.077706291
ENSMUSG00000078926	Cdc20b	1.603592288	0.976285478	2.154617755	1.7354632
ENSMUSG00000082587	Gm12129	6.733376013	0.985343279	0.248170304	1.374735416
ENSMUSG00000085915	Gm8091	0.306182898	0.997416288	0.333507316	2.597239155
ENSMUSG00000079528	1700021O21Rik	3.721898752	1.014498127	-0.20752307	0
ENSMUSG00000075269	Bex6	2.110159989	1.017316205	1.143866796	0.728795606
ENSMUSG00000083285	Gm15815	2.097729919	1.04137617	0.129692031	1.058337279
ENSMUSG00000030954	Gp2	2.527174012	1.042196099	-0.34902112	2.230835361
ENSMUSG00000078971	-	1.07280432	1.046846662	0.516566524	2.460812333
ENSMUSG00000078817	Nlrp12	2.162104422	1.052863376	0.312017284	1.000316162
ENSMUSG00000079330	Lemd1	3.954282756	1.057769103	2.255428635	0.80079597
ENSMUSG00000030111	A2m	6.697943172	1.066419896	6.43029477	1.276198865
ENSMUSG00000082262	Gm14730	2.484599617	1.06709485	0.192841812	0.240706323
ENSMUSG00000090665	Gad1-ps	2.15858828	1.075069274	0.45183367	0.911593537
ENSMUSG00000091445	-	2.102713937	1.081089502	1.236594817	1.24546095
ENSMUSG00000031385	Plxnb3	1.139651402	1.087495135	9.066307304	0.390966259
ENSMUSG00000061684	Rpl21-ps8	-1.674954642	1.09228551	-1.90761889	2.367855305
ENSMUSG00000030156	Cd69	2.562250138	1.104824279	1.364734513	1.80427701
ENSMUSG00000020010	Vnn3	2.438496433	1.114401075	2.084086662	1.130693978
ENSMUSG00000040133	Gpr176	3.166152101	1.131241456	3.277925106	1.569128653
ENSMUSG00000083630	Gm15602	0.899140262	1.139855821	1.105089451	2.090206443
ENSMUSG00000091919	-	2.578467329	1.166418787	1.733771639	0.369875349
ENSMUSG00000026088	Mitd1	2.000332659	1.19725171	1.110172966	1.303638039
ENSMUSG00000041754	Trem3	2.003949478	1.216297893	0.790606216	1.286987644
ENSMUSG00000026582	Sele	3.012610042	1.226679294	2.775874757	2.410161531
ENSMUSG00000021880	Rnase6	2.103058982	1.228825774	0.867989733	1.573035371
ENSMUSG00000080193	Gm14756	0	1.228991464	3.623047448	1.299308035
ENSMUSG00000055872	Gm9985	3.222784659	1.231896878	1.898284574	1.921618057
ENSMUSG00000000392	Fap	1.230802314	1.233214988	0.514931101	2.224379051
ENSMUSG00000078349	AW011738	2.034112797	1.258511618	1.427885027	1.425624141
ENSMUSG00000080076	Hist1h2aj	0.610846095	1.265589704	1.159197021	2.319386673
ENSMUSG00000038418	Egr1	2.274703537	1.281974509	1.780488576	1.210659044
ENSMUSG00000072909	-	1.630244303	1.287383069	0.907560699	2.766757352
ENSMUSG00000059108	Ifitm6	3.010910299	1.289378744	1.581689994	1.123568525
ENSMUSG00000038580	Sct	4.412874252	1.291421704	2.980339539	1.803945242
ENSMUSG00000001095	Slc13a2	2.110397537	1.300374166	2.732008253	2.578307683
ENSMUSG00000053541	Gm4759	2.174341053	1.307495594	0.887103705	1.718682711
ENSMUSG00000037246	H2-M10.5	5.439655938	1.309455014	0.361111487	5.536726192
ENSMUSG00000028362	Tnfsf8	3.483337243	1.319727558	2.103590807	1.176249515
ENSMUSG00000027580	BC006779	2.036636084	1.320594515	1.410019974	1.591584119
ENSMUSG00000090517	-	0.95173473	1.326146803	0.820617578	2.404975375
ENSMUSG00000090141	Gm614	2.306502114	1.32886268	0.519124952	-0.477617606
ENSMUSG00000083045	Gm16100	2.090161728	1.329433635	3.180664081	1.356312866
ENSMUSG00000066258	Trim12a	2.006050846	1.332310286	1.00571953	1.459593774
ENSMUSG00000079451	Tmprss11g	0.865864083	1.35880172	1.684284943	2.674406599

ENSMUSG00000074000	-	2.058895171	1.362737695	1.113859902	-1.01032579
ENSMUSG00000039748	Exo1	2.083240591	1.371819374	0.45853473	1.901040523
ENSMUSG00000019320	Noxo1	2.248593247	1.381339652	1.269771455	1.864814545
ENSMUSG00000037440	Vnn1	2.341817986	1.397599628	1.06287683	1.417054053
ENSMUSG00000040428	Plekha4	2.569557084	1.412455158	1.824502606	1.281130191
ENSMUSG00000031891	Hsd11b2	2.074183842	1.413043449	1.480968107	1.448854838
ENSMUSG00000000202	Btbd17	2.60596229	1.418301779	2.828302572	1.410159224
ENSMUSG00000054136	Adm2	2.205273498	1.420871434	0.729015164	1.153283936
ENSMUSG00000029304	Spp1	0.508753132	1.421039635	1.075098935	2.003448171
ENSMUSG00000078702	-	0	1.428025663	2.106180788	2.198411949
ENSMUSG00000047330	Kcne4	2.144643981	1.438384315	1.693061611	1.018516692
ENSMUSG00000026429	Ube2t	0.928436448	1.449934454	0.983583357	2.071137467
ENSMUSG00000047735	Samd9l	2.198531036	1.452324856	1.084595717	1.627224252
ENSMUSG00000047230	Cldn2	3.240273272	1.457975882	2.791785382	0.400995502
ENSMUSG00000030218	Mgp	2.049852132	1.469254095	1.320928719	1.046953124
ENSMUSG00000086143	-	5.980178623	1.479829563	5.199400814	1.432958175
ENSMUSG00000028255	Clca3	5.915641551	1.495994086	5.153266848	2.475502513
ENSMUSG00000066512	Klk1b5	5.551269812	1.510227746	4.16624729	2.502033754
ENSMUSG00000074529	C330013J21Rik	3.362496942	1.518819863	1.749726667	0.043010442
ENSMUSG00000028751	Pla2g2e	2.110461555	1.523017781	0.566821383	0.338401386
ENSMUSG00000080142	Gm12838	2.10500528	1.523814979	0.138309464	0.585821982
ENSMUSG00000054044	Gm9933	1.820585207	1.527271844	2.378567225	1.56124555
ENSMUSG00000086705	-	2.614459773	1.532837285	1.142089138	1.494867864
ENSMUSG00000030117	Gdf3	5.046062633	1.535137245	3.979291831	0.646447481
ENSMUSG00000083081	Gm13223	0.764522411	1.542994175	0.800301053	2.438639474
ENSMUSG00000030365	Clec2i	1.214305386	1.556993526	0.680294333	2.108737814
ENSMUSG00000079700	Fpr3	3.11345415	1.56722186	1.009824841	1.741588863
ENSMUSG00000082507	Gm9378	-0.769006774	1.567989862	0.427848265	2.578532711
ENSMUSG00000086176	Gm15534	3.490888703	1.573876843	1.888996923	1.207709985
ENSMUSG00000026630	Batf3	1.310661199	1.592760644	0.786845716	2.317040694
ENSMUSG00000047592	Nxpe5	1.917291115	1.593651432	2.482150479	1.804676489
ENSMUSG00000063286	Gm8995	2.598939582	1.596933038	1.310995506	1.958643367
ENSMUSG00000081173	Gm13500	1.329986299	1.602566442	-0.91488008	2.358973225
ENSMUSG00000083796	Gm13369	-0.342942567	1.614194582	-1.00254236	2.667833616
ENSMUSG00000030650	Tmc5	1.814872884	1.617182727	1.466132209	2.58719534
ENSMUSG00000082163	Gm14276	1.252069888	1.618733019	-0.11663154	2.152700864
ENSMUSG00000083186	Gm11805	0.69237724	1.664804247	0.677476022	2.121902933
ENSMUSG00000033213	AA467197	5.29587973	1.668845283	2.694581782	1.794835876
ENSMUSG00000063021	Hist1h2ak	5.866406144	1.66963491	1.198210865	2.079761113
ENSMUSG00000005410	Mcm5	1.33588015	1.674553264	1.008600035	2.07995067
ENSMUSG00000025001	Hells	1.774549987	1.683686943	0.858168451	2.094455606
ENSMUSG00000025492	Ifitm3	2.245813399	1.69150779	1.439318054	1.454246558
ENSMUSG00000003617	Cp	2.060516327	1.693167063	1.093573747	1.713293881
ENSMUSG00000038508	Gdf15	2.777042797	1.696698484	2.595676546	1.850056633
ENSMUSG00000030413	Pglyrp1	2.285002143	1.698571116	2.113925652	1.915314895
ENSMUSG00000040658	BC048355	0.0737712	1.698579686	0.353069423	2.07078125
ENSMUSG00000068129	Cst7	2.514097665	1.699789739	1.845234894	2.089401949
ENSMUSG00000083726	-	2.069229808	1.702631478	1.799060071	2.578469673

ENSMUSG00000039501	Znfx1	2.319921457	1.709967907	1.178089416	1.777002207
ENSMUSG00000040296	Ddx58	2.468260279	1.726050458	1.405636126	1.836504321
ENSMUSG00000024795	Kif20b	0.995175665	1.726087136	0.292166142	2.12982521
ENSMUSG00000059309	Hist1h3f	-0.086194323	1.737716274	0.370725321	2.243093233
ENSMUSG00000060519	Tor3a	2.423104276	1.738061852	1.14293348	1.673449968
ENSMUSG00000043939	A530064D06Rik	4.193290013	1.742067296	2.542219429	2.026904699
ENSMUSG00000069892	9930111J21Rik2	2.21699083	1.748398712	0.943566666	1.778836157
ENSMUSG00000049625	Tifab	2.304004201	1.755770497	1.114993062	1.741626734
ENSMUSG00000012428	Steap4	2.474106622	1.75710571	1.733785898	2.057162261
ENSMUSG00000090607	Gm17052	0.49215583	1.762722844	-0.22832184	2.007114126
ENSMUSG00000026222	Sp100	2.14419917	1.763225368	1.336393053	1.751988774
ENSMUSG00000069893	9930111J21Rik1	2.228615686	1.766736028	0.98276355	1.805305178
ENSMUSG00000075122	Cd80	2.061782545	1.766764574	1.44186965	1.504542517
ENSMUSG00000034652	Cd300a	2.451428776	1.770920962	0.903219558	1.152933982
ENSMUSG00000038301	Snx10	2.137332494	1.777399727	0.621934513	1.691974917
ENSMUSG00000030077	Chl1	1.031755887	1.782770941	0.826783678	2.280519201
ENSMUSG00000006930	Hap1	2.221637836	1.783493814	1.505450611	1.830636576
ENSMUSG00000069309	Hist1h2an	1.575250852	1.786750937	1.736087212	2.265255156
ENSMUSG00000030474	Siglece	2.378875883	1.78875574	1.354698935	1.227896877
ENSMUSG00000041347	Bdkrb1	2.570827948	1.791529513	2.848792589	2.859311637
ENSMUSG00000048498	Cd300e	2.253005594	1.799239244	1.188493554	1.272348556
ENSMUSG00000062417	Hist1h3g	0.16548226	1.801220835	-0.19825887	2.01517225
ENSMUSG00000036931	Nfkbid	1.96060256	1.805133567	1.909881742	2.083511686
ENSMUSG00000031444	F10	2.02696275	1.81071359	1.089865331	1.50493287
ENSMUSG00000020089	Ppa1	1.451835354	1.840701061	0.72414626	2.090047591
ENSMUSG00000063268	Parp10	2.017114869	1.843747649	1.204041829	1.732882157
ENSMUSG00000021697	Depdc1b	-0.762336186	1.844122072	0.179367729	2.154510344
ENSMUSG00000075404	-	2.491028115	1.845060891	1.040021126	2.229177448
ENSMUSG00000035673	Sbno2	1.496376062	1.84688894	1.305104945	2.068545596
ENSMUSG00000081832	Gm6897	0	1.848898901	2.903418181	1.276291667
ENSMUSG00000082910	Gm14758	0.790532681	1.848898901	3.01802877	1.276291667
ENSMUSG00000090792	-	2.092787827	1.849880446	0.547196371	1.868045928
ENSMUSG00000007080	Pole	1.554959581	1.850522102	1.265742919	2.172708846
ENSMUSG00000034883	Lrr1	2.081062312	1.852802757	0.878587799	2.236505261
ENSMUSG00000004707	Ly9	2.291297878	1.858180619	1.312664323	1.840862942
ENSMUSG00000092005	-	2.019375568	1.861512813	1.116699446	1.673029368
ENSMUSG00000030427	Lilra6	2.156439218	1.862265583	0.779798084	1.609279998
ENSMUSG00000083407	Gm13176	2.326706293	1.862469683	2.01491462	2.3435756
ENSMUSG00000034206	Polq	1.623339134	1.868381943	1.149115396	2.269470043
ENSMUSG00000062082	Cd200r4	2.571023936	1.86997658	1.610970022	1.920011014
ENSMUSG00000024079	Eif2ak2	2.54168414	1.873493068	1.604377445	1.87801527
ENSMUSG00000027078	Ube2l6	2.369943693	1.874931579	1.127087966	1.815259495
ENSMUSG00000040010	Slc7a5	2.012805983	1.881947796	1.289038144	0.655097263
ENSMUSG00000052759	Gpr25	-0.982605596	1.882000963	1.36897944	2.535467543
ENSMUSG00000071713	Csf2rb	1.579489554	1.88323192	1.145070862	2.044708631
ENSMUSG00000079740	Gm11172	2.504437343	1.884769823	1.159926219	1.941170179
ENSMUSG00000050957	Insl6	2.940193503	1.885620203	1.926053065	1.21787843
ENSMUSG00000022584	Ly6c2	2.426950357	1.890173249	1.054444293	1.342123034

ENSMUSG00000039997	Ifi203	2.61349756	1.892809835	1.483407285	2.134117149
ENSMUSG00000053835	H2-T24	2.202851795	1.893017664	1.321851932	1.677769788
ENSMUSG00000045273	Cenph	0.513363011	1.894327482	0.273469054	2.272686997
ENSMUSG00000071350	Setdb2	2.099219484	1.896918354	0.365947901	1.654382414
ENSMUSG00000037868	Egr2	2.419970374	1.898523945	1.785537457	1.778387722
ENSMUSG00000028874	Fgr	1.941109755	1.90329233	0.904843488	2.094620856
ENSMUSG00000001156	Mxd1	2.162912834	1.904687947	1.155556125	1.904472605
ENSMUSG00000055172	C1ra	2.004896686	1.910291062	1.075175044	1.720097294
ENSMUSG00000036986	Pml	2.386854182	1.910534598	1.48568241	0.660989432
ENSMUSG00000034959	5031414D18Rik	2.028641007	1.913137974	0.61860283	2.153664332
ENSMUSG00000001901	Kcnh6	0.239668632	1.913961298	-0.01571449	3.315828189
ENSMUSG00000027306	Nusap1	0.367024795	1.915083116	0.184468674	2.430406894
ENSMUSG00000069302	Hist1h2ah	-0.020665204	1.916508854	0.139409692	2.340035787
ENSMUSG00000054040	-	4.601779968	1.916776707	3.417499719	1.764991677
ENSMUSG00000029664	Tfpi2	3.126343567	1.917820077	1.419388063	1.521215688
ENSMUSG00000024989	Cep55	2.412478852	1.925654677	1.690846424	2.043500755
ENSMUSG00000035355	Kcnh4	2.061144795	1.925900697	1.513990632	2.211027685
ENSMUSG00000060262	-	1.534790948	1.930816325	1.73025477	2.525685854
ENSMUSG00000023015	Racgap1	1.444516256	1.931101725	1.097887087	2.153113322
ENSMUSG00000082176	Gm13163	0.143330458	1.938874199	-0.97217922	2.557084743
ENSMUSG00000071714	Csf2rb2	1.64451532	1.940553695	1.195792445	2.170170092
ENSMUSG00000039854	-	4.362264401	1.944686555	2.992779824	1.857618281
ENSMUSG00000001228	Uhrf1	1.253044255	1.946893187	1.082832595	2.334249241
ENSMUSG00000022876	Samsn1	1.899619894	1.950945606	1.164074736	2.073806027
ENSMUSG00000067341	H2-Eb2	1.902227722	1.951155714	1.15452869	2.33227132
ENSMUSG00000025129	Ppp1r27	-1.775586382	1.955612922	1.115361778	2.795781123
ENSMUSG00000048327	Ckap2l	1.139416755	1.959875446	0.847309889	2.502816341
ENSMUSG00000029366	Dck	2.211174935	1.963770684	1.250027907	2.312081666
ENSMUSG00000091567	-	2.374641698	1.967685512	1.327804137	2.293641764
ENSMUSG00000091928	-	2.389877898	1.979008064	1.33940256	2.298484234
ENSMUSG00000034482	Ly6g5c	-0.40797438	1.979654995	-0.88347727	2.595461907
ENSMUSG00000091489	-	0.271277283	1.985547791	0.386321292	3.297062258
ENSMUSG00000019876	Pkib	2.252614811	1.988334266	0.629077074	2.031399172
ENSMUSG00000085149	-	2.364061094	1.988992451	1.661662728	2.410556384
ENSMUSG00000046688	Tifa	1.517467414	1.989521463	0.624626692	2.273292199
ENSMUSG00000073902	Gm1966	2.495283706	1.990957393	1.054224555	2.26610833
ENSMUSG00000068631	Gm7676	2.103047104	1.993644213	1.636222821	1.754296691
ENSMUSG00000087181	Gm13570	1.097221668	1.994455689	2.332716166	1.201692993
ENSMUSG00000022587	Ly6e	2.197739204	1.994674179	1.660734931	1.897952555
ENSMUSG00000051439	Cd14	2.162940532	1.997158896	1.695561157	2.109908154
ENSMUSG00000071068	Trem12	2.25495622	1.999040384	1.623514004	2.256027007
ENSMUSG00000069304	-	1.534790948	2.002160629	2.336570379	2.409244761
ENSMUSG00000059937	-	2.016866644	2.004016893	0.765872905	1.817870067
ENSMUSG00000020185	E2f7	0.874105986	2.006042628	1.229515655	2.16672532
ENSMUSG00000032586	Traip	1.0946866	2.006819842	0.59580373	0.717265664
ENSMUSG00000042345	Ubash3a	0.309965357	2.008347788	0.432597834	1.650830739
ENSMUSG00000051498	Tlr6	1.736687255	2.008950539	0.793717371	2.115473696
ENSMUSG00000089942	Pira2	1.810046631	2.019510124	0.689974647	1.739921213

ENSMUSG00000027995	Tlr2	2.447728656	2.02125987	1.351299895	1.900949632
ENSMUSG00000065968	Ifitm7	2.282325408	2.023992549	1.930386676	2.023567655
ENSMUSG00000022221	Ripk3	1.493616711	2.025206746	0.792293465	1.746733429
ENSMUSG00000038311	2410017I17Rik	2.923949147	2.028644793	-0.34998606	1.542337712
ENSMUSG00000022831	Hcls1	1.616502628	2.028831497	0.862735518	2.004326534
ENSMUSG00000040829	Zmynd15	1.818439536	2.029772133	1.109328714	1.701075042
ENSMUSG00000030147	Clec4b1	0.620023617	2.037357812	0.727935315	2.14224234
ENSMUSG00000055413	H2-Q5	1.870889908	2.03790792	1.088106985	1.484003657
ENSMUSG00000032596	Uba7	2.206676806	2.038356975	1.202245055	0.491577779
ENSMUSG00000039236	Isg20	2.750301105	2.039086644	1.430637145	1.959402541
ENSMUSG00000052160	Pld4	2.205374489	2.040236074	1.251586073	1.575844523
ENSMUSG00000038523	1700003F12Rik	-0.667988379	2.042104099	0.231089617	1.560457998
ENSMUSG00000028613	Lrp8	1.881339508	2.042467195	1.156492834	2.338877395
ENSMUSG00000074651	Mcin	0.95585736	2.043687679	1.743258863	2.876997328
ENSMUSG00000035455	Figl1	2.090616217	2.04427159	1.467991109	1.968348303
ENSMUSG00000041929	-	-0.905748517	2.04479024	-0.16524557	2.544738751
ENSMUSG00000026890	Lhx6	1.081356952	2.047074445	0.063285124	1.443219954
ENSMUSG00000028480	Glpr2	1.288347725	2.04745852	0.539990125	1.74125823
ENSMUSG00000092155	-	-0.531667744	2.047538326	-0.0498133	2.459880677
ENSMUSG00000050578	Mmp13	2.14691817	2.048786813	1.838800418	0.726219965
ENSMUSG00000030793	Pycard	1.289860617	2.048931414	0.515818314	1.83529122
ENSMUSG00000079620	Muc4	2.185552468	2.049448795	2.152384659	2.554809267
ENSMUSG00000031504	Rab20	2.219933046	2.050920167	1.528899755	1.693271643
ENSMUSG00000046908	Ltb4r1	0.122824973	2.051093209	0.065234159	2.100055334
ENSMUSG00000074419	Gm15448	2.272439227	2.05184393	0.971145011	1.795364221
ENSMUSG00000033453	Adamts15	1.474052882	2.053277218	1.349207453	0.064311648
ENSMUSG00000034947	Tmem106a	2.068104602	2.054840791	1.155612495	1.768266538
ENSMUSG00000024730	Ms4a8a	1.718809789	2.057880271	0.798389631	1.866739316
ENSMUSG00000003484	Cyp4f18	2.282932559	2.058184508	1.345379552	1.463627233
ENSMUSG00000067203	H2-K2	1.696807945	2.058701152	1.056381566	1.659728435
ENSMUSG00000040751	Lat2	2.15122484	2.060112644	1.333869899	1.843410102
ENSMUSG00000083668	Gm5648	1.227889098	2.060884321	0.819651486	1.032690668
ENSMUSG00000003283	Hck	1.843479905	2.063271373	0.603976248	1.820639373
ENSMUSG00000027715	Ccna2	1.329744665	2.063614067	0.879335257	2.207982361
ENSMUSG00000021451	Sema4d	2.009715357	2.065496636	1.158820439	1.926253238
ENSMUSG00000078452	Raet1d	1.314551524	2.067936567	1.017494379	0.986367298
ENSMUSG00000079505	Gm11131	1.827721213	2.072279551	1.01340735	1.570586051
ENSMUSG00000082803	Gm14423	1.947440606	2.073976437	1.263744823	1.441632919
ENSMUSG00000081665	Gm15922	1.8694766	2.076526927	0.780365062	1.791290078
ENSMUSG00000028071	Sh2d2a	1.063772276	2.077278389	1.136083567	2.312512405
ENSMUSG00000079298	Klrb1b	2.661573314	2.077363795	-0.50373412	1.90777766
ENSMUSG00000026580	Selp	2.517147657	2.079954375	1.847524502	2.619936605
ENSMUSG00000037872	Darc	2.210841406	2.084672313	1.255332425	2.014252614
ENSMUSG00000073409	H2-Q6	1.844285141	2.085102036	1.011974658	1.670376592
ENSMUSG00000005640	Insrr	3.07457019	2.085242064	1.516348533	2.211448329
ENSMUSG00000082367	Gm12363	0.611849187	2.085668316	-0.27117704	0.61183805
ENSMUSG00000027496	Aurka	1.205874064	2.086230316	1.155846099	2.3479053
ENSMUSG00000085995	Gm2788	1.425676315	2.088532	0.617261726	3.160989478

ENSMUSG00000079274	-	3.008840981	2.089054229	1.32350087	2.631003389
ENSMUSG00000074417	Gm14548	2.013061972	2.089124561	0.880710146	1.836758606
ENSMUSG00000033031	C330027C09Rik	1.325093359	2.09235363	0.231746747	2.198503069
ENSMUSG00000074342	I830077J02Rik	2.620820022	2.092978683	0.868790914	1.822641107
ENSMUSG00000030677	Kif22	1.050449699	2.093490876	1.079963348	2.548623957
ENSMUSG00000034641	Cd300ld	3.061755575	2.09577645	1.650079399	1.982461712
ENSMUSG00000035951	Ascl3	-0.558523946	2.099421259	-0.96615375	1.795496567
ENSMUSG00000026068	Il18rap	1.955013401	2.101669807	0.705562332	1.666954288
ENSMUSG00000005470	Asf1b	0.454760365	2.101738766	0.579081147	2.53650192
ENSMUSG00000074148	-	1.689496486	2.102349132	0.485590139	0.026418689
ENSMUSG00000030786	Itgam	1.874258556	2.102370509	1.42643412	1.626074205
ENSMUSG00000059657	Stfa2l1	3.822671267	2.103902839	1.742403275	0.977095469
ENSMUSG00000015854	Cd5l	1.263869133	2.105675512	1.405638158	1.739605616
ENSMUSG00000006642	Tcf23	1.30792196	2.10961334	0.840827252	0.198786566
ENSMUSG00000089950	Gm16215	1.101670244	2.113417132	1.397074587	1.306058043
ENSMUSG00000042607	Asb4	1.082373422	2.115011551	0.814196735	2.864511889
ENSMUSG00000084301	Gm7856	1.890560002	2.115766086	1.26990409	2.303521167
ENSMUSG00000061232	H2-K1	1.84563553	2.115791591	1.044794353	1.48579345
ENSMUSG00000050232	Cxcr3	1.600494205	2.116266015	1.548667071	1.307162405
ENSMUSG00000029829	Tmem213	0.357925923	2.117756508	1.181974864	2.087141539
ENSMUSG00000017861	Mybl2	0.559160086	2.119203964	0.500326232	2.622809955
ENSMUSG00000054520	Sh3bp2	2.034834949	2.121307832	1.318943171	2.104535855
ENSMUSG00000020848	Doc2b	2.551023482	2.122030434	0.830821867	0.603460873
ENSMUSG00000086133	Gm16331	-0.530991032	2.12345218	0.044078579	1.417078017
ENSMUSG00000089929	Bcl2a1b	1.831259382	2.124265902	0.651105951	0.239431055
ENSMUSG00000067610	Klri1	2.265225485	2.128817133	0.864894368	1.80433135
ENSMUSG00000084220	Gm12387	1.221945594	2.135779708	0.273031314	2.312701798
ENSMUSG00000061100	Retnla	2.334488125	2.136771849	2.773615043	2.998529294
ENSMUSG00000087651	1500009L16Rik	2.022264679	2.13817286	1.541277359	1.858785101
ENSMUSG00000020053	Igf1	1.882999813	2.139798724	0.869618622	1.850918858
ENSMUSG00000002307	Daxx	2.808844474	2.145838007	1.449674973	2.165767522
ENSMUSG00000017146	Brca1	1.575531904	2.146964209	1.39768233	2.209471258
ENSMUSG00000073491	Pydc4	3.854005242	2.151340434	2.304256708	2.272806309
ENSMUSG00000018920	Cxcl16	1.83378577	2.157193707	0.834338164	1.867755418
ENSMUSG00000004328	Hif3a	2.16259899	2.157270446	1.91367307	1.007955302
ENSMUSG00000051354	Samd3	1.559492071	2.158254329	0.50856388	2.113906816
ENSMUSG00000035929	H2-Q4	1.941071421	2.158507751	1.030565655	1.477041137
ENSMUSG00000022504	Ciita	1.745914541	2.159921809	0.902498426	2.495262073
ENSMUSG00000079492	Gm11127	1.649044701	2.161936025	0.924837063	1.707058121
ENSMUSG00000073402	Gm8909	2.241491911	2.162317289	1.133051638	1.735901055
ENSMUSG00000078606	Gm4070	2.284914072	2.163430058	1.046479629	2.432220065
ENSMUSG00000086198	-	0.343221282	2.163615426	0.93318601	1.167635197
ENSMUSG00000053219	Raet1e	1.263947823	2.164512815	0.833674627	1.003259947
ENSMUSG00000038507	Parp12	2.235353732	2.164969885	1.153696644	2.031682795
ENSMUSG00000045868	Gvin1	2.285103134	2.165257803	1.049102685	2.426847344
ENSMUSG00000024910	Ctsw	1.704235615	2.165858874	1.124188852	2.142679478
ENSMUSG00000072377	-	1.73207654	2.170924094	0.97074159	1.562345666
ENSMUSG00000024112	Cacna1h	1.241299239	2.172592962	0.951105417	1.619390682

ENSMUSG00000017499	Cdc6	1.805273533	2.174838257	1.615816666	2.271123774
ENSMUSG00000080917	Gm15925	1.958880996	2.175433127	0.909835376	1.880461293
ENSMUSG00000024663	Rab3il1	0.972720944	2.176988373	0.800763666	2.166702618
ENSMUSG00000037313	Tacc3	1.141861926	2.178573267	1.466915197	2.317715802
ENSMUSG00000052477	C130026I21Rik	2.497831843	2.184179499	1.02239109	2.092153348
ENSMUSG00000037997	Parp11	2.506588908	2.18597232	1.092043191	2.261422377
ENSMUSG00000042115	Klhdc8a	1.431179842	2.186407058	-0.18209878	1.037739505
ENSMUSG00000051235	Gen1	1.187271674	2.191559703	0.335788449	2.358599474
ENSMUSG00000025739	Gng13	0.908689103	2.193067733	0.515023598	2.630076915
ENSMUSG00000053175	Bcl3	1.775221016	2.194698148	1.818709115	2.55602656
ENSMUSG00000050075	Gpr171	2.556113902	2.199431028	1.425968049	2.432691672
ENSMUSG00000060550	H2-Q7	1.945263273	2.200213588	1.186235241	1.742365847
ENSMUSG00000073821	8030451A03Rik	1.839573144	2.201885887	1.472215896	2.256761479
ENSMUSG00000001123	Lgals9	2.285347691	2.202968335	1.39117004	1.994285697
ENSMUSG00000046828	Mettl21e	0.832318335	2.206988484	0.271115339	0.755984354
ENSMUSG00000069301	Hist1h2ag	-0.032638863	2.20716174	1.360670472	2.515371076
ENSMUSG00000034422	Parp14	2.659687692	2.209352082	1.427323086	2.355236924
ENSMUSG00000051949	-	3.832862647	2.212572451	1.72100691	1.501546149
ENSMUSG00000091388	Gm17576	-0.599548391	2.213655303	0.066917852	1.98906648
ENSMUSG00000091747	D17H6S56E-5	2.479025459	2.214808236	1.915113735	2.382133576
ENSMUSG00000022431	Ribc2	1.096645571	2.215391499	0.259612665	2.626816693
ENSMUSG00000052485	Tmem171	1.744031639	2.21593084	1.14777977	1.82436793
ENSMUSG00000075602	Ly6a	2.323050259	2.215968051	1.169439307	1.656528153
ENSMUSG00000078783	Gm9733	2.984813634	2.223704135	0.918604229	1.902980402
ENSMUSG00000049734	Trex1	2.518258889	2.225231929	1.484512815	0.708503464
ENSMUSG00000079017	Ifi2712a	2.691103126	2.226425154	2.194962301	2.39122965
ENSMUSG00000079563	Pglyrp2	0.440867992	2.228468655	-0.05661582	2.512693453
ENSMUSG00000026646	Suv39h2	1.440056603	2.230720781	1.270940189	2.272835948
ENSMUSG00000082039	Gm15653	-0.355169556	2.231162031	-0.80498948	0.150553178
ENSMUSG00000091253	-	1.721137833	2.231222105	-0.95660243	-0.0339226
ENSMUSG00000074420	Gm10693	2.013042401	2.233046333	0.879650704	2.000604024
ENSMUSG00000058818	Lilrb3	2.170921384	2.234392441	1.071394716	1.975920377
ENSMUSG00000081372	Gm16171	-0.593692614	2.236267054	-1.55399836	2.777766887
ENSMUSG00000027639	Samhd1	2.067900535	2.239104081	0.867692603	2.117885497
ENSMUSG00000032218	Ccnb2	1.47357027	2.240678856	0.994696955	0.834047011
ENSMUSG00000020399	Havcr2	2.125089998	2.243516571	0.717189212	1.808873848
ENSMUSG00000068348	Gm10238	2.277642014	2.246405421	1.59869845	2.054257242
ENSMUSG00000079553	Kifc1	0.871646432	2.248746538	0.827630749	2.272767309
ENSMUSG00000079004	-	0.543059284	2.249131263	0.405512191	2.305809026
ENSMUSG00000026896	Ifih1	2.930823057	2.24955825	1.392022661	2.130041844
ENSMUSG00000021886	Gpr65	2.512903885	2.250218286	0.922074827	2.068883605
ENSMUSG00000074476	Spc24	1.416075244	2.254735596	1.504115513	0.518416186
ENSMUSG00000044811	AF251705	2.339077271	2.255369547	1.067103701	1.806195374
ENSMUSG00000001444	Tbx21	1.462566646	2.256989732	1.152637669	2.086958673
ENSMUSG00000075010	AW112010	2.581869813	2.257772357	1.301908971	2.151263481
ENSMUSG00000061972	Olfr99	2.845329462	2.259097128	1.11448624	2.549079576
ENSMUSG00000066513	Klk1b4	3.927045943	2.25927822	2.823718951	3.411061381
ENSMUSG00000083994	Gm16465	1.87869557	2.261616239	0.992219943	0.638936254

ENSMUSG00000079019	Insl3	1.573869851	2.262307719	1.627465941	2.569881412
ENSMUSG00000041515	Irf8	1.958773587	2.263790507	0.83664426	0.673373843
ENSMUSG00000040204	2810417H13Rik	0.918266751	2.264089686	0.523050742	0.526167083
ENSMUSG00000070390	Nlrp1b	2.569707297	2.265014047	1.018741732	2.282076654
ENSMUSG00000074273	Gm10657	1.972606457	2.265332576	0.73255175	-0.217873988
ENSMUSG00000029816	GpnmB	2.314258884	2.267260735	1.543207784	1.753582351
ENSMUSG00000071715	Ncf4	2.085709609	2.267755136	1.25830418	2.223802187
ENSMUSG00000074788	-	1.694950937	2.269449312	0.887637607	1.937831639
ENSMUSG00000037474	Dtl	0.922762596	2.269748684	0.680568745	2.205095646
ENSMUSG00000026458	Ppfia4	2.374836665	2.273783256	1.135440115	1.850682694
ENSMUSG00000066677	Pydc3	3.205583544	2.274793159	1.641139471	2.080093048
ENSMUSG00000026779	Mastl	1.816970995	2.275736961	0.755318765	2.61664546
ENSMUSG00000067614	Krt86	1.793667101	2.277348028	0.559344066	2.447908143
ENSMUSG00000091373	Gm8810	1.384655528	2.277888641	0.751140118	1.896412535
ENSMUSG00000087551	-	2.204930154	2.278536477	1.390678456	2.490247016
ENSMUSG00000024056	Ndc80	0.731890434	2.282111364	-0.23867719	2.442020533
ENSMUSG00000025279	Dnase113	2.053200583	2.288063169	1.138413344	2.370141989
ENSMUSG00000075330	A930003A15Rik	-1.762778974	2.29148249	-0.76649335	1.038075436
ENSMUSG00000089783	Gm454	0.678528226	2.291878542	2.800095402	3.310726484
ENSMUSG00000038218	Gm9765	3.293716794	2.292086733	1.966297417	2.11116155
ENSMUSG00000021624	Cd180	2.529019487	2.292348925	0.648307883	1.947859142
ENSMUSG00000047841	BC051628	-0.699934532	2.29482077	-1.10276411	2.759913358
ENSMUSG00000036362	P2ry13	2.392392327	2.296375846	1.155130817	2.599707019
ENSMUSG00000068227	Il2rb	2.327843723	2.297156576	1.605382646	1.993392755
ENSMUSG00000044583	Tlr7	3.027523565	2.298965963	1.933213386	0.676595428
ENSMUSG00000069310	Hist1h3c	-0.380792926	2.299450387	-0.3782408	0.805780484
ENSMUSG00000036067	Slc2a6	2.537951614	2.30067554	1.195719571	2.495941697
ENSMUSG00000025473	Adam8	1.676173581	2.301268272	1.448034718	1.976490135
ENSMUSG00000045763	Basp1	1.962681916	2.304809718	1.72973554	1.997312007
ENSMUSG00000084328	Gm14046	-0.182580146	2.305030289	-0.5527296	3.003986676
ENSMUSG00000022901	Cd86	3.020751119	2.305628135	1.39952123	2.593915399
ENSMUSG00000038963	Slco4a1	1.36664039	2.306542427	0.997850442	2.115363814
ENSMUSG00000025058	5430427O19Rik	3.47043964	2.306751818	2.171416464	0.357097044
ENSMUSG00000028873	Cdca8	0.815688118	2.310708479	1.027675322	2.369994587
ENSMUSG00000019845	Tube1	0.139227219	2.312717	0.169078936	2.792492505
ENSMUSG00000026669	Mcm10	1.88749883	2.31332374	1.814074471	2.777008543
ENSMUSG00000002068	Cene1	2.417913845	2.3151159	1.900691615	2.537179145
ENSMUSG00000034394	Lif	2.4789831	2.315946688	1.840828239	1.956013165
ENSMUSG00000025746	Il6	6.957083194	2.316698959	6.17636304	2.576074627
ENSMUSG00000020493	Prr11	0.913685585	2.317185648	1.026223221	2.247802461
ENSMUSG00000072244	Trim6	2.306593679	2.317387612	0.975455926	2.010123601
ENSMUSG00000049608	Gpr55	1.898945949	2.317818464	1.039875177	2.677401594
ENSMUSG00000070327	Rnf213	2.797711893	2.318520278	1.711741965	2.498927505
ENSMUSG00000070034	Sp110	2.472469574	2.320084273	1.339814475	2.299181107
ENSMUSG00000083617	Gm5390	-0.84740419	2.320100901	0.432961268	-0.377008218
ENSMUSG00000024529	Lox	1.241374281	2.322834268	0.680779694	1.519839697
ENSMUSG00000082088	Gm15753	2.352740397	2.323275561	1.140040383	2.262725699
ENSMUSG00000048534	Amical	2.167987509	2.323970827	1.041962213	0.090147917



ENSMUSG00000084169	Gm12240	-0.026958589	2.325553826	-0.62726847	1.573008914
ENSMUSG00000030867	Plk1	1.263687208	2.327942393	1.022829541	2.557539863
ENSMUSG00000038135	Crygn	-0.437164667	2.329056524	-0.83807956	0.757709131
ENSMUSG00000024696	Lpxn	2.857952508	2.331617457	1.614139872	2.381638999
ENSMUSG00000044827	Thr1	2.425437016	2.332119303	1.179483486	2.4638952
ENSMUSG00000073406	H2-B1	1.984279003	2.33399305	1.048804459	1.628043946
ENSMUSG00000028459	Cd72	2.457093877	2.337330908	1.133299613	1.817879924
ENSMUSG00000024339	Tap2	1.910758176	2.338012248	0.767438307	2.234966978
ENSMUSG00000081701	Gm13890	0	2.338367362	0	0
ENSMUSG00000026039	Sgol2	1.096374031	2.34280222	0.464471141	2.076077674
ENSMUSG00000083769	Gm11689	0.824507679	2.342853368	0.293472108	1.307125678
ENSMUSG00000021190	Lgmn	1.946998358	2.344413471	1.182520895	1.673513551
ENSMUSG00000042726	Trafd1	2.326222758	2.345794186	1.205938755	2.157825792
ENSMUSG00000070388	Fbxo39	2.574271844	2.346100912	1.998652258	2.457014662
ENSMUSG00000082692	Gm15652	-0.058299862	2.347230725	0.261758474	2.425079434
ENSMUSG00000037860	Aim2	2.050204598	2.34839341	1.046153988	2.190457967
ENSMUSG00000021614	Vcan	3.167359149	2.351453834	1.823265351	2.227680143
ENSMUSG00000026548	Slamf9	2.787803111	2.356543205	1.234210553	2.043656404
ENSMUSG00000079455	Gm16026	2.578624973	2.357702266	1.43434006	2.367237358
ENSMUSG00000061852	Gm7582	2.510024699	2.361100655	1.403499729	2.132688191
ENSMUSG00000056290	Ms4a4b	2.669543138	2.364540757	1.422826147	2.198131377
ENSMUSG00000031765	Mt1	2.040636443	2.365544708	2.101601208	2.000551986
ENSMUSG00000081974	Gm11960	3.085708976	2.366876803	-0.40974805	-0.607898263
ENSMUSG00000041831	Syt13	1.904743035	2.367768131	1.032414812	1.70033349
ENSMUSG00000012443	Kif11	1.560655315	2.369223301	1.21616059	2.552442945
ENSMUSG00000049502	Dtx3l	2.773785575	2.370556274	1.464199693	2.403918122
ENSMUSG00000062007	Hsh2d	3.217646458	2.371354549	2.050467252	2.773366451
ENSMUSG00000030895	Hpx	1.617637723	2.372957314	0.620458735	3.234657669
ENSMUSG00000021208	Ifi2712b	2.733766341	2.374642995	2.156753391	2.493961264
ENSMUSG00000029811	Abp1	2.629652085	2.375949057	1.495873632	2.080482127
ENSMUSG00000027368	Dusp2	2.107354802	2.37691691	1.256468796	2.394559753
ENSMUSG00000078773	Rad54b	1.059593733	2.37724532	1.048646424	2.624875349
ENSMUSG00000041536	Serpina3a	3.950928983	2.380971495	1.861040356	2.419914424
ENSMUSG00000011008	Mcoln2	2.002290605	2.381790065	1.08351621	2.707031099
ENSMUSG00000031004	Mki67	0.873329911	2.382807501	0.828670815	2.766878903
ENSMUSG00000049109	Themis	-1.070782404	2.382842772	-0.70269327	2.476173525
ENSMUSG00000086076	Ncr3-ps	1.330093223	2.388314789	1.097577291	3.0125445
ENSMUSG00000087060	2810442I21Rik	2.809670726	2.389472398	1.472668157	2.482119217
ENSMUSG00000053977	Cd8a	-1.24124667	2.39216746	-0.48215153	2.50708092
ENSMUSG00000029414	Kntc1	1.474158028	2.392950927	1.494042951	2.467369101
ENSMUSG00000067212	H2-T23	2.341181299	2.395704668	1.168056597	2.002483342
ENSMUSG00000022548	Apod	3.671461757	2.398085777	2.643964876	2.087241341
ENSMUSG00000086513	9130208D14Rik	2.403338827	2.398352998	1.091732853	2.591799806
ENSMUSG00000078771	Evi2a	2.486209964	2.399735602	1.13766405	2.281863062
ENSMUSG00000083178	Gm12187	2.918186739	2.400393927	1.24089074	2.523331265
ENSMUSG00000090756	-	0.642639577	2.401480705	-0.81441423	1.263112395
ENSMUSG00000024330	Coll1a2	2.518959824	2.403845876	1.499461462	2.470116471
ENSMUSG00000069273	Hist1h3e	-0.174245334	2.404204119	-0.22011499	2.371953355

ENSMUSG00000053063	Clec12a	2.651323674	2.405547095	1.081157797	1.624489862
ENSMUSG00000079491	H2-T10	2.265938132	2.406754217	0.960167048	1.961919174
ENSMUSG00000030268	Bcat1	1.307750938	2.406867568	1.729669785	4.033223528
ENSMUSG00000024337	-	1.996984122	2.409361472	0.861572381	2.296761765
ENSMUSG00000056116	H2-T22	2.189875119	2.409371342	0.992539152	1.941773208
ENSMUSG00000030651	Art2b	1.352937371	2.410692883	0.736702751	2.1726648
ENSMUSG00000010601	Apol7a	1.550309207	2.413284032	0.325050852	1.907985758
ENSMUSG00000090222	Gm16340	2.56733091	2.422480768	1.484945427	2.48749795
ENSMUSG00000090272	Mndal	2.853262399	2.423405646	1.691350775	2.401672616
ENSMUSG00000050107	Gsg2	0.870232996	2.42365982	0.263436283	2.562735602
ENSMUSG00000035004	Igsf6	2.427716215	2.42968827	0.954699189	2.037023075
ENSMUSG00000069267	Hist1h3b	0.503009692	2.431091436	0.606492395	1.153826979
ENSMUSG00000027398	Il1b	3.086932422	2.431582295	2.459500813	2.815357429
ENSMUSG00000073407	Gm6034	1.871480404	2.431926052	0.471210045	2.051911453
ENSMUSG00000054128	H2-T3	2.33119812	2.433016544	2.460920396	1.744842793
ENSMUSG00000002699	Lcp2	1.573945988	2.433137213	0.761407889	2.276745676
ENSMUSG00000017724	Etv4	2.047286188	2.43354533	1.250132511	1.900705561
ENSMUSG00000040528	Gm885	2.416555661	2.433713233	1.350404038	2.333791669
ENSMUSG00000024842	Cabp4	2.070572088	2.433791009	1.330723571	1.791463468
ENSMUSG00000046805	Mpeg1	2.534292927	2.435071139	1.005687191	2.069061493
ENSMUSG00000055994	Nod2	2.380229184	2.437439129	1.352868939	2.59488435
ENSMUSG00000037406	Htra4	1.735943534	2.437985337	0.650096795	1.813927438
ENSMUSG00000084170	Gm11954	0.697810258	2.442019822	-0.37250714	1.32894746
ENSMUSG00000004952	Rasa4	2.259515731	2.446701299	1.233811415	2.117433278
ENSMUSG00000040483	Xaf1	3.100748128	2.450320269	2.06737857	2.274449643
ENSMUSG00000027322	Siglec1	3.583151058	2.452286876	2.890877615	2.139791185
ENSMUSG00000067613	5430421N21Rik	0.369647504	2.454627567	0.496785074	2.048961378
ENSMUSG00000046179	E2f8	1.006090752	2.45813618	0.854375186	2.829392197
ENSMUSG00000081512	Gm15821	1.81667505	2.458570614	0.73544335	2.307876009
ENSMUSG00000047511	Olfrl396	1.70305639	2.466580139	0.661982127	2.226385217
ENSMUSG00000033952	Aspm	0.837029415	2.474407721	0.320662332	2.703027201
ENSMUSG00000044701	Il27	2.755609387	2.476546014	2.207160542	2.360870199
ENSMUSG00000073405	C920025E04Rik	2.012434988	2.479163152	1.133804541	2.007503563
ENSMUSG00000021266	Wars	1.647786585	2.481701939	0.200901635	2.398671704
ENSMUSG00000033538	Casp4	2.572712172	2.484070717	1.475975735	0.823669495
ENSMUSG00000058163	Gm5431	3.208052863	2.485317276	1.780970064	2.447985089
ENSMUSG00000018899	Irf1	1.925746734	2.485927164	0.544064622	2.363198612
ENSMUSG00000081143	Gm15823	-0.286380848	2.486722865	2.328987051	1.570334083
ENSMUSG00000024014	Pim1	1.837297086	2.487466494	1.326161492	2.586550399
ENSMUSG00000032322	Pstpip1	1.865995917	2.491753566	1.201547758	0.574940437
ENSMUSG00000091428	-	4.316934953	2.491799235	3.334312263	3.009343589
ENSMUSG00000071280	Gm10322	0.143330458	2.49359619	-0.56015505	3.741986732
ENSMUSG00000022021	Diap3	2.733555488	2.498754134	2.160353679	2.310535103
ENSMUSG00000000182	Fgf23	1.852733985	2.499562725	2.692137023	5.099377261
ENSMUSG00000039519	Cyp7b1	3.242450398	2.500789112	2.13109915	2.622333245
ENSMUSG00000021423	Ly86	3.024206572	2.502585456	1.903426687	2.273257386
ENSMUSG00000028793	Rnf19b	1.921589888	2.502658211	0.88979112	2.167511088
ENSMUSG00000030148	Clec4a2	1.598540476	2.503616766	0.570194901	1.754508833

ENSMUSG00000091191	Gm17334	1.846682176	2.506897647	0.403709792	2.394534322
ENSMUSG00000027331	D2Ertd750e	1.486827105	2.508190999	0.837770842	2.301237245
ENSMUSG00000036912	Piwil4	2.653205075	2.509673386	1.9567779	1.483221654
ENSMUSG00000023132	Gzma	1.369181954	2.511697799	0.631462492	2.084595638
ENSMUSG00000020330	Hmmr	1.752895099	2.516577361	1.013156135	2.95803089
ENSMUSG00000022906	Parp9	2.62916772	2.518125655	1.424544504	2.456670891
ENSMUSG00000024349	Tmem173	2.124112244	2.522542359	1.547568925	2.666639988
ENSMUSG00000061242	Rpl21-ps7	-1.472233841	2.523697711	-1.94543445	1.980126311
ENSMUSG00000087520	Gm14389	0.729296134	2.527280567	0.887359863	2.400166278
ENSMUSG00000033470	Cysltr2	1.987072708	2.528728093	0.535721243	1.507176151
ENSMUSG00000027832	Ptx3	3.189863406	2.529123861	4.154893993	2.548783939
ENSMUSG00000036768	Kif15	0.401542795	2.530802303	-0.22674087	0.77815897
ENSMUSG00000026628	Atf3	2.693960811	2.542349459	1.36170004	2.308795547
ENSMUSG00000022094	Slc39a14	2.445885149	2.547223377	1.486468762	2.508765746
ENSMUSG00000090158	-	3.034975546	2.549634107	1.784515924	2.421735243
ENSMUSG00000073412	Lst1	2.701906601	2.558799882	1.3791931	2.388532496
ENSMUSG00000026605	Cenpf	0.82961562	2.562961206	0.499123065	2.977210638
ENSMUSG00000059639	Clec4a4	1.462529939	2.571010095	-0.43041019	1.751799103
ENSMUSG00000035042	Ccl5	2.436035528	2.573394106	1.588056522	2.324781067
ENSMUSG00000024338	Psmb8	2.309080262	2.57471778	1.176129389	2.475790908
ENSMUSG00000021765	Fst	0.877803261	2.582358065	0.320536177	1.600385055
ENSMUSG00000058290	Espl1	1.227300957	2.584012126	1.207515988	3.039979085
ENSMUSG00000027843	Ptpn22	2.217448536	2.586092593	1.100717583	1.920940537
ENSMUSG00000006398	Cdc20	1.183660021	2.589197814	1.119961758	2.85864349
ENSMUSG00000082458	Gm9430	1.256224058	2.591592111	0.661753537	1.244430478
ENSMUSG00000023992	Trem2	1.788306449	2.591911059	1.327508303	1.572156766
ENSMUSG00000073980	Gm9574	2.075114728	2.592494341	1.823439486	1.704809792
ENSMUSG00000030154	Klrblf	2.051553694	2.592913438	0.904036919	1.140064974
ENSMUSG00000053475	Tnfaip6	2.597325145	2.596121785	2.616965888	3.142506572
ENSMUSG00000022582	Ly6g	2.364391615	2.59738938	2.083414185	2.26456494
ENSMUSG00000039899	Fgl2	2.515947417	2.59876213	1.157497504	2.461269353
ENSMUSG00000026955	2010317E24Rik	1.030292917	2.600631403	0.559075407	3.068876408
ENSMUSG00000070691	Runx3	2.347989801	2.60162865	1.885082857	2.548228166
ENSMUSG00000029915	Clec5a	2.218155789	2.603098935	0.971507072	2.401691764
ENSMUSG00000082129	Gm14502	0	2.604028612	0	0
ENSMUSG00000030745	Ii21r	1.424510324	2.606529165	0.932478931	2.860942051
ENSMUSG00000021322	Aoah	2.140292561	2.606953327	1.013094978	2.402024231
ENSMUSG00000022034	Esco2	2.030486252	2.609881528	1.602976081	2.542716355
ENSMUSG00000068101	Cenpm	1.39227351	2.61377946	0.619184081	2.485893147
ENSMUSG00000021281	Tnfaip2	1.740841761	2.617953747	0.855469349	2.539678586
ENSMUSG00000004612	Nkg7	1.348641347	2.618085993	0.474525856	2.353735021
ENSMUSG00000036469	1-Mar	1.859966914	2.618165262	1.006083293	2.617587317
ENSMUSG00000085954	-	3.18566669	2.619037026	2.539048106	2.304757007
ENSMUSG00000022583	Ly6f	2.42467246	2.62745286	2.229144591	2.201681217
ENSMUSG00000037202	Prf1	1.571926723	2.628349248	0.7977864	2.170092027
ENSMUSG00000042489	Clspn	1.237062335	2.629370026	1.015710195	2.660178641
ENSMUSG00000090439	Gm17455	1.581026465	2.636133992	1.486874911	-0.894313049
ENSMUSG00000030525	Chrna7	2.704144731	2.6437404	1.793039315	3.092603126

ENSMUSG00000034116	Vav1	1.800648916	2.64478645	0.96037514	2.537412167
ENSMUSG00000038943	Prc1	1.479416372	2.647544825	1.031456952	3.019833484
ENSMUSG00000027699	Ect2	1.442266154	2.650925775	0.748106828	2.419163334
ENSMUSG00000022586	Ly6i	2.695743617	2.652193391	1.504627536	2.229802588
ENSMUSG00000044170	Olfrl384	0.519268394	2.656340886	-0.54200004	2.71106203
ENSMUSG00000020415	Pttg1	2.490273728	2.656475821	1.764151887	2.660684679
ENSMUSG00000028602	Tnfrsf8	0.926260259	2.660787952	-0.90941864	2.295025967
ENSMUSG00000091650	Apol11a	1.211438675	2.669962232	0.397811676	2.313291105
ENSMUSG00000039981	Zc3h12d	2.125823332	2.672220522	1.603041848	2.66143901
ENSMUSG00000072082	Ccnf	1.173433332	2.675105402	0.702957229	2.722776795
ENSMUSG00000040017	Saa4	6.10142764	2.675307851	3.924006726	2.38115045
ENSMUSG00000005696	Sh2d1a	0.146041764	2.676611522	-0.18220971	1.697878044
ENSMUSG00000043832	Clec4a3	2.861341678	2.682091595	1.369496708	2.049054888
ENSMUSG00000036887	C1qa	1.732050465	2.683272836	1.487886482	2.252669189
ENSMUSG00000028068	Iqgap3	1.966052436	2.683533954	1.802114013	2.361311469
ENSMUSG00000022385	Gtse1	1.307994818	2.68414319	1.125861006	2.569269271
ENSMUSG00000084160	Gm13345	3.137158468	2.690381041	2.456384641	0.052150114
ENSMUSG00000026683	Nuf2	2.204693837	2.692644218	1.591229652	3.313334163
ENSMUSG00000085607	-	2.488370149	2.697996617	1.609282912	2.247692228
ENSMUSG00000047728	BC025446	2.447677514	2.701087842	2.229707851	2.176696903
ENSMUSG00000002055	Spag5	0.705653833	2.702454402	0.613098766	3.159513273
ENSMUSG00000048806	Ifnb1	3.111734121	2.703676599	2.059905529	2.628974182
ENSMUSG00000058715	Fcer1g	2.500059094	2.706743475	1.481909126	2.328968823
ENSMUSG00000078780	Gm5150	2.457091649	2.709109163	1.771989204	2.509539775
ENSMUSG00000073822	-	0.407521923	2.709805356	0.767094358	1.561986809
ENSMUSG00000040084	Bub1b	0.82885484	2.710196412	0.66445728	2.908387679
ENSMUSG00000056529	Ptafr	3.03531409	2.712581826	1.48228342	2.29460373
ENSMUSG00000036896	C1qc	1.739695331	2.713688739	1.180210819	2.324264221
ENSMUSG00000051378	Kif18b	0.87440368	2.716843174	1.051938854	2.849995097
ENSMUSG00000023505	Cdca3	0.877055568	2.717422124	1.126940944	2.942019933
ENSMUSG00000024791	Cdca5	1.318274145	2.720170742	1.018334881	2.984768044
ENSMUSG00000040033	Stat2	2.73147649	2.724605852	1.808022962	2.815390981
ENSMUSG00000015880	Ncapg	1.86896965	2.725398279	1.504761415	3.059170956
ENSMUSG00000030142	Clec4e	4.423633555	2.726111487	2.896530497	2.398476454
ENSMUSG00000027469	Tpx2	1.514855286	2.727129407	0.82613707	2.671101741
ENSMUSG00000037991	Rmi2	1.497967597	2.732935657	0.512138812	2.968371204
ENSMUSG00000024222	Fkbp5	2.110068811	2.733091417	2.070284886	2.066358857
ENSMUSG00000021714	Cenpk	3.131403822	2.735315725	1.171474311	2.945510437
ENSMUSG00000091344	-	1.077796723	2.740678141	0.772483655	2.005799964
ENSMUSG00000082273	Gm14801	1.480603789	2.747720979	1.357855548	2.814030572
ENSMUSG00000026770	Il2ra	2.462827107	2.753596804	1.841709281	2.829034423
ENSMUSG00000053168	9030619P08Rik	2.266343277	2.756472547	1.987022983	2.76238721
ENSMUSG00000038642	Ctss	2.582391161	2.756915636	1.405082884	2.3552046
ENSMUSG00000079712	Gm8597	2.906365955	2.759835859	2.533226212	2.816388783
ENSMUSG00000046295	Ankle1	0.762500368	2.766722943	0.827171295	3.148697223
ENSMUSG00000058728	Cd300c	1.03305279	2.769502776	0.666335714	2.57461811
ENSMUSG00000036905	C1qb	1.875649259	2.775105909	1.500450681	2.353661412
ENSMUSG00000043873	Chi317	0.79572881	2.777920068	-0.42846173	0.021412464

ENSMUSG00000038357	Camp	-0.780537495	2.780119063	-1.11876484	0.316307888
ENSMUSG00000074385	Gm10684	2.220774584	2.788380051	0.972667216	0.263322746
ENSMUSG00000029378	Areg	3.511942494	2.788907334	3.263946593	2.363056842
ENSMUSG00000049303	Syt12	1.972114871	2.793131451	1.050585106	2.243356151
ENSMUSG00000037731	Themis2	2.732105989	2.809972285	1.407218499	2.64356134
ENSMUSG00000030167	Klrc1	1.732158261	2.812450509	0.099120099	2.704751269
ENSMUSG00000031756	Cenpn	0.624813364	2.814992813	0.659578201	0.877245492
ENSMUSG00000027199	Gatm	2.042479528	2.815309555	0.856457563	2.604041707
ENSMUSG00000091564	-	2.51227461	2.816064617	0.303372799	2.159075025
ENSMUSG00000069792	Wfdc17	2.104809726	2.81880193	1.588571803	2.897189358
ENSMUSG00000045328	Cenpe	1.255172425	2.81901468	0.623030236	3.004668954
ENSMUSG00000090646	-	1.548655681	2.822647126	1.083603634	2.407473407
ENSMUSG00000020649	Rrm2	0.812911113	2.839021584	1.10172983	3.143836851
ENSMUSG00000045381	Olfr433	-0.27721526	2.83991609	-0.71926867	1.819414936
ENSMUSG00000024677	Ms4a6b	3.014463587	2.843477866	1.703651233	2.572042073
ENSMUSG00000033644	Piwil2	1.548007283	2.84556716	1.110255399	2.549372327
ENSMUSG00000020897	Aurkb	1.195669597	2.846559298	1.105394708	2.880358075
ENSMUSG00000032691	Nlrp3	2.455326743	2.846977048	1.478315395	2.501378327
ENSMUSG00000027219	Slc28a2	2.695727809	2.848460972	0.994724806	2.352159216
ENSMUSG00000035852	9130017N09Rik	2.923281319	2.864554722	1.67796078	2.472140389
ENSMUSG00000090128	Gm16038	2.901204657	2.867429996	1.789176732	2.740553457
ENSMUSG00000023940	Sgol1	1.039182779	2.870272856	0.832287506	3.264429465
ENSMUSG00000057465	Saa2	6.692915895	2.870356828	5.307799649	3.252919703
ENSMUSG00000081446	Gm14068	1.62912826	2.870530478	0.481082251	1.565585078
ENSMUSG00000049103	Ccr2	2.950456144	2.870991096	1.470753278	1.257517404
ENSMUSG00000024340	Btl2	0.90205289	2.875322618	-0.22116545	2.689515769
ENSMUSG00000081206	Gm11935	-0.431975902	2.879038262	1.141484348	0.57955033
ENSMUSG00000029298	Gbp9	2.353209078	2.881633949	0.43765842	2.854508683
ENSMUSG00000052749	Trim30b	3.965083053	2.890823901	2.444005854	2.672550404
ENSMUSG00000072572	Slc39a2	2.027406831	2.894887278	0.886224658	2.764914886
ENSMUSG00000017716	Birc5	1.134268618	2.895093845	1.204395419	3.051997026
ENSMUSG00000038179	Slamf7	3.521981746	2.900714437	1.259200385	2.743294754
ENSMUSG00000026073	Il1r2	2.190910563	2.909046771	1.172788324	2.204345811
ENSMUSG00000041324	Inhba	3.069699563	2.914554806	1.634477105	2.659757168
ENSMUSG00000084139	Gm12322	0.237369316	2.921153557	-1.29717516	0.64768843
ENSMUSG00000022622	Acr	-0.367409692	2.927042861	-0.85716495	1.751462223
ENSMUSG00000041431	Ccnb1	1.777701211	2.934073583	0.953358829	3.13537789
ENSMUSG00000073411	H2-D1	2.231797201	2.93503563	1.000586978	1.269601023
ENSMUSG00000046057	Gm15428	0.406996354	2.93554255	0.150887694	3.226630058
ENSMUSG00000017832	Hspb9	1.45852844	2.939865837	0.297196317	0.979772961
ENSMUSG00000022014	Epsti1	3.382246763	2.948977815	2.324737775	2.924461369
ENSMUSG00000061577	Gpr114	3.356722354	2.950165734	2.354413499	3.048327084
ENSMUSG00000035493	Tgfbi	2.420210406	2.958956176	1.333807188	2.646354997
ENSMUSG00000053113	Socs3	2.872479952	2.962834641	2.790208485	3.098828841
ENSMUSG00000028971	Cort	0.210781895	2.964233594	1.692685033	3.579031324
ENSMUSG00000058755	Osm	3.3019049	2.96464423	3.354215329	3.081116752
ENSMUSG00000083822	Hmgb1-ps5	2.99350821	2.967617337	1.602310975	2.693413254
ENSMUSG00000072621	Slfn10-ps	3.971868948	2.970256052	2.140984941	2.810921845

ENSMUSG00000074622	Mafb	1.779326539	2.978473914	1.210207527	2.500866911
ENSMUSG00000002992	Apoc2	2.347277244	2.982181585	1.605075252	1.691193829
ENSMUSG00000009292	Trpm2	2.209930749	2.992676151	0.941215149	2.426172211
ENSMUSG00000040253	Gbp7	2.776042409	2.996200037	1.008201797	3.101823305
ENSMUSG00000031872	Bean1	1.835327659	2.997067928	0.017651866	1.529576476
ENSMUSG00000028678	Kif2c	-0.771868212	2.998372077	-1.609355545	2.939733856
ENSMUSG00000023913	Pla2g7	2.956498879	3.002527691	1.506334037	2.175120183
ENSMUSG00000079071	Gm14085	3.075052847	3.011791909	1.447187083	2.469693425
ENSMUSG00000057191	AB124611	2.684051319	3.013981529	1.300984023	1.340839562
ENSMUSG00000026656	Fcgr2b	2.478724363	3.015810046	1.537627969	2.879826016
ENSMUSG00000026104	Stat1	2.864605425	3.015896822	1.454080166	3.143851772
ENSMUSG00000030921	Trim30a	3.579839946	3.018381432	1.878969212	3.006879843
ENSMUSG00000072620	Slfn2	3.030581294	3.018671572	1.746758146	2.866248277
ENSMUSG00000020684	Ras110b	2.925369697	3.019209358	1.465845279	1.943538819
ENSMUSG00000033777	Tlr13	3.672926554	3.026358174	1.904391405	1.111678504
ENSMUSG00000041498	Kif14	0.683694002	3.02745071	0.523235365	2.981882462
ENSMUSG00000040328	Olfir56	2.849846385	3.034614698	1.325432727	2.883400456
ENSMUSG00000038209	Itln1	1.970515055	3.04084207	1.337260805	2.939891789
ENSMUSG00000039315	Clnk	2.475693123	3.043332299	0.966088217	2.892437415
ENSMUSG00000009214	Tmem8c	0.35470265	3.044893766	0.541217448	3.072477423
ENSMUSG00000026009	Icos	1.369610865	3.047758686	1.167742776	2.872549662
ENSMUSG00000029075	Tnfrsf4	1.707926762	3.048978823	1.410525733	3.451320416
ENSMUSG00000089763	Gm2635	3.630692695	3.055583199	2.546986381	3.036371663
ENSMUSG00000055541	Lair1	3.141119994	3.065315145	0.94450326	2.566902154
ENSMUSG00000066361	Serpina3c	2.45404371	3.068532227	1.474221772	2.420646922
ENSMUSG00000023078	Cxcl13	2.415378052	3.071355355	1.092034648	2.203381874
ENSMUSG00000033880	Lgals3bp	3.312368345	3.080885468	2.412359854	2.722622095
ENSMUSG00000036596	Cpz	1.74279246	3.08116511	1.223236686	2.430255169
ENSMUSG00000037921	Ddx60	3.50592884	3.08491574	1.800527763	2.75995711
ENSMUSG00000033355	Rtp4	3.012831295	3.08522515	2.186153799	3.048692992
ENSMUSG00000086123	Gm16060	-0.544990248	3.090084503	-0.5508299	2.793304647
ENSMUSG00000082000	Gm12488	0.273637626	3.093645642	0.203330226	1.039116033
ENSMUSG00000020808	Fam64a	0.676529841	3.093934442	0.966728504	2.517208683
ENSMUSG00000063177	Klk1b27	4.183776277	3.094139732	3.284382596	3.578153859
ENSMUSG00000047798	Cd300lf	3.193988638	3.098425057	1.951339076	2.53814267
ENSMUSG00000050896	Rtn4rl2	3.204338802	3.108466755	2.69016778	2.74095848
ENSMUSG00000025877	Hk3	2.625245018	3.115405272	0.881790653	2.842895215
ENSMUSG00000034329	Brip1	1.608376914	3.115884262	0.898795035	3.164932791
ENSMUSG00000055629	B4galnt4	0.903629245	3.118873618	0.72638646	2.382446841
ENSMUSG00000074146	4930579C12Rik	2.432013151	3.126697065	0.74286731	2.156210281
ENSMUSG00000047293	Gpr15	4.14782601	3.133284681	2.694953692	3.45315755
ENSMUSG00000024124	Prss30	2.402353626	3.138483344	1.873340389	3.527648556
ENSMUSG00000063903	Klk1	5.395005916	3.147945363	4.112129761	3.532876643
ENSMUSG00000022824	Muc13	0.446332011	3.150234599	1.187403338	4.383046678
ENSMUSG00000067843	-	0	3.154077639	0	0
ENSMUSG00000028262	Clca2	3.180285941	3.155071596	1.737714793	2.629042886
ENSMUSG00000021403	Serpib9b	1.802411955	3.15862518	0.455495715	1.585600875
ENSMUSG00000069793	Slfn9	4.309450499	3.158737615	2.851458549	3.325068098

ENSMUSG00000058470	Gm8369	4.112775042	3.159543235	3.173920632	2.925535198
ENSMUSG00000048922	Cdca2	1.358781643	3.163279252	1.342800243	3.411774395
ENSMUSG00000073631	Gm10553	3.034637335	3.163502255	1.865059325	3.242056185
ENSMUSG00000029377	Ereg	1.769468296	3.164505851	2.263008064	1.962560253
ENSMUSG00000019942	Cdk1	2.038154334	3.169143553	1.510249955	3.290956098
ENSMUSG00000046718	Bst2	3.676376896	3.170551406	2.616565167	2.868281633
ENSMUSG00000035365	Parpbp	2.797866188	3.172335343	1.898182651	2.882416933
ENSMUSG00000029605	Oas1b	3.592617794	3.187966331	2.376835722	3.136458582
ENSMUSG00000044313	Mab2113	3.423586134	3.188411429	2.320008088	3.576393897
ENSMUSG00000042730	-	0.382771369	3.189537307	-0.70030545	0.994524543
ENSMUSG00000084197	Gm9089	2.541740816	3.199330277	2.297771082	-0.431899973
ENSMUSG00000030144	Clec4d	2.32729988	3.202937468	1.459391532	2.77959753
ENSMUSG00000039396	Neil3	1.073391578	3.205771017	0.35189247	2.784489307
ENSMUSG00000044138	-	3.006111913	3.206631657	1.32214154	2.595234364
ENSMUSG00000034773	BC030867	1.640133033	3.215167361	1.780700196	3.473237058
ENSMUSG00000068744	Psrc1	1.614194929	3.216555295	0.93273885	2.11570223
ENSMUSG00000026475	Rgs16	3.240228083	3.227054693	2.712216819	2.848055756
ENSMUSG00000090939	Gm17147	0.138725038	3.229715873	0.942206853	3.964304764
ENSMUSG00000043740	B430306N03Rik	4.213335837	3.230032694	2.750091265	3.123694608
ENSMUSG00000036223	Ska1	1.754776467	3.264073865	1.387040817	2.811226459
ENSMUSG00000075266	Cenpw	0.407835897	3.264724038	0.128881701	3.259776913
ENSMUSG00000005667	Mthfd2	2.605060091	3.266449091	1.641985391	3.19866028
ENSMUSG00000026573	Xcl1	3.423908358	3.269722901	0.185321891	2.731020277
ENSMUSG00000073554	Gm6960	1.650694814	3.272802415	0.829408276	3.381133315
ENSMUSG00000074026	Gm6091	1.385394621	3.283401165	0.551340588	1.444476459
ENSMUSG00000040613	Apobec1	3.27349329	3.286122775	1.893717544	2.723304323
ENSMUSG00000074151	Nlrc5	3.177870791	3.287706587	1.62155852	3.170577371
ENSMUSG00000029798	Herc6	3.803495943	3.28890089	2.330786022	3.347198819
ENSMUSG00000079419	Ms4a6c	3.460306925	3.29399297	1.968704273	2.885667502
ENSMUSG00000050014	Apol10b	3.798135375	3.296149171	1.402082012	2.828211015
ENSMUSG00000074677	Sirpb1c	3.836814754	3.29715136	1.765538084	2.751834329
ENSMUSG00000091553	Serpina3e-ps	3.733158532	3.303937513	2.039739299	3.063087761
ENSMUSG00000035683	Melk	0.535105131	3.309478162	0.024767957	3.415361454
ENSMUSG00000037321	Tap1	2.791815899	3.310226889	1.373641464	3.154394693
ENSMUSG00000062593	Lilrb4	3.140161168	3.312473797	2.046385369	3.08474628
ENSMUSG00000026177	Slc11a1	2.730833287	3.319147752	1.532851104	2.283287675
ENSMUSG00000029005	Draxin	2.410190897	3.320085136	0.408690375	2.013252818
ENSMUSG00000014686	Ceacam16	2.794472721	3.320867464	2.741777754	2.181544004
ENSMUSG00000091576	Trim30b	3.57207228	3.328384143	1.900524621	3.21056435
ENSMUSG00000068245	D14Erttd668e	3.93313581	3.32897763	2.288323676	3.121458638
ENSMUSG00000032783	Troap	1.26380267	3.333276204	0.877400292	3.399858273
ENSMUSG00000041064	Pif1	0.01326978	3.33683033	0.868724885	2.266801594
ENSMUSG00000043263	Pyhin1	3.738297583	3.339193852	2.079965013	3.479378562
ENSMUSG00000053318	Slamf8	2.796964344	3.340526451	0.518979258	3.603013096
ENSMUSG00000057135	Scimp	3.572704328	3.340571802	1.947210061	3.418996355
ENSMUSG00000049988	Lrrc25	2.953854746	3.351117376	1.543486939	2.671117785
ENSMUSG00000035208	Slfn8	4.158395729	3.359538883	2.632668681	3.432928479
ENSMUSG00000078860	-	2.757614289	3.369407853	1.337197281	0

ENSMUSG00000071716	Apol7e	2.095623504	3.37738687	0.777951071	2.954008501
ENSMUSG00000039699	Batf2	2.702861784	3.392077706	1.015954382	3.400441493
ENSMUSG00000054203	Ifi205	3.28028129	3.394506933	1.702524999	3.070045955
ENSMUSG00000029322	Plac8	3.978002334	3.401038874	2.474206684	3.373416808
ENSMUSG00000029380	Cxcl1	5.19052012	3.402960566	4.158203232	3.742342395
ENSMUSG00000079014	Serpina3i	3.290810887	3.406994115	1.435613039	3.313978079
ENSMUSG00000020638	Cmpk2	4.130997531	3.408662485	2.546926752	3.618163992
ENSMUSG00000067615	Krt81	1.215226675	3.410403566	0.511752305	2.836945905
ENSMUSG00000067555	Gm10212	3.017528338	3.411208193	1.878033897	2.89882869
ENSMUSG00000049037	Clec4a1	3.342995418	3.411763876	1.934610591	2.71935198
ENSMUSG00000024798	Htr7	2.491901212	3.414829342	1.144755397	3.592398865
ENSMUSG00000029371	Cxcl5	3.881000095	3.41809753	3.101519016	4.535860819
ENSMUSG00000078781	-	3.489242419	3.425413655	1.508736127	2.866068435
ENSMUSG00000078920	Ifi47	3.268383876	3.425780925	1.558236721	3.474216746
ENSMUSG00000069910	Ccdc99	1.609940928	3.433577461	0.734559039	3.735259495
ENSMUSG00000075031	Hist1h2bb	-1.117489026	3.438427477	-1.71525951	0.850606729
ENSMUSG00000081675	Gm12712	1.503872982	3.443797584	-0.42966845	0.934486308
ENSMUSG00000030149	Klrk1	3.417223601	3.445004294	1.528432789	2.939088047
ENSMUSG00000038379	Ttk	1.99053886	3.446217607	1.250775414	2.071693964
ENSMUSG00000009185	Ccl8	3.404949328	3.462910806	3.349059057	3.808538979
ENSMUSG00000038304	Cd160	1.474732052	3.465396267	1.151421732	2.582992528
ENSMUSG00000025804	Ccr1	2.830835092	3.468261646	1.681336497	1.77168035
ENSMUSG00000058207	Serpina3k	4.175749674	3.479932558	2.502987652	3.191468942
ENSMUSG00000070501	BC094916	3.656082556	3.483766898	2.074498725	3.668977956
ENSMUSG00000028327	1300002K09Rik	3.431160314	3.491442785	1.778599528	3.131960069
ENSMUSG00000020651	Slc26a4	4.076337038	3.492159636	2.764416247	3.81774071
ENSMUSG00000023903	Mmp25	1.999689375	3.497949659	1.329982466	3.494467665
ENSMUSG00000005800	Mmp8	4.005708414	3.505517185	1.571827681	0.600247964
ENSMUSG00000026536	Mnda	3.76691278	3.507626408	2.138479519	3.328994936
ENSMUSG00000037725	Ckap2	1.789195355	3.509898891	1.279747214	3.383051096
ENSMUSG00000004296	Il12b	5.75490136	3.511407939	2.202086978	3.302432754
ENSMUSG00000078763	Slfn1	4.149547283	3.515522066	2.534349911	3.292530173
ENSMUSG00000001773	Folh1	1.201956904	3.521806084	0.31414575	-1.278980648
ENSMUSG00000030187	Klra2	5.136717878	3.526531026	2.787670001	2.724725174
ENSMUSG00000045322	Tlr9	4.12215089	3.541778742	2.372483748	1.791841057
ENSMUSG00000053101	Gpr141	4.624559744	3.545639282	2.036931373	3.032954509
ENSMUSG00000089672	Gp49a	3.242855732	3.549303056	1.956664302	3.239674374
ENSMUSG00000033847	Pla2g4c	2.513630093	3.550139675	0.650553935	3.891545126
ENSMUSG00000068252	Apol7b	2.390500565	3.553303669	1.215678005	3.233213835
ENSMUSG00000090189	-	3.680627292	3.55528239	2.746976681	3.931008524
ENSMUSG00000084133	Gm12856	1.390532784	3.56679107	0.628357545	3.736690414
ENSMUSG00000073632	-	3.556111168	3.567771817	2.360625844	3.712051931
ENSMUSG00000091144	Gm6907	3.991804565	3.616958417	2.394534521	3.625778704
ENSMUSG00000022534	Mefv	3.451864123	3.62526937	2.146430704	3.58688073
ENSMUSG00000066867	Oas1e	2.093563281	3.629235086	-0.07489044	2.541999619
ENSMUSG00000030124	Lag3	2.362153464	3.630890139	1.826447394	3.425862766
ENSMUSG00000024371	C2	3.971738987	3.631772025	2.626240918	3.235077831
ENSMUSG00000090894	Olfr110	0.362366645	3.639744288	0.277164707	0.0128714



ENSMUSG00000043811	Rtn4r	0.429772615	3.645273338	0.369311566	3.203878496
ENSMUSG00000074153	-	3.185412692	3.646942698	2.08201028	3.67875203
ENSMUSG00000073490	AI607873	3.547181976	3.651167428	2.360188659	3.37551588
ENSMUSG00000063660	Olfcr98	2.505363612	3.65654103	0.136425334	3.396019774
ENSMUSG00000022652	Morc1	5.469607995	3.659437873	2.535214367	5.053092906
ENSMUSG00000037544	Dlgap5	1.776061641	3.665544064	1.661644007	3.977353622
ENSMUSG00000083161	Gm11427	5.147040087	3.667154798	3.530947078	3.486104884
ENSMUSG00000028270	Gbp2	3.308876492	3.671582891	1.044519985	3.654280618
ENSMUSG00000069874	Irgm2	3.076114689	3.675445057	1.439514407	3.730850574
ENSMUSG00000067297	2010002M12Rik	4.489299878	3.700240275	2.978408911	4.015552705
ENSMUSG00000012519	Mlkl	3.278439941	3.703910203	1.440253341	3.154242904
ENSMUSG00000062488	I830012O16Rik	4.454108387	3.706366146	2.910343563	3.639421507
ENSMUSG00000066364	Serpina3b	3.407674951	3.708696532	1.141415709	3.422290354
ENSMUSG00000028718	Stil	1.287998013	3.727299598	1.356746984	3.776116475
ENSMUSG00000018986	Slfn3	4.774595382	3.736378799	3.05596403	3.70624689
ENSMUSG00000073489	Ifi204	4.080516719	3.750708817	2.450964599	3.563753547
ENSMUSG00000056025	Clca1	3.423828549	3.771599433	1.479656937	2.387181038
ENSMUSG00000079339	Gm14446	4.89671084	3.773834257	3.452645518	4.114969976
ENSMUSG00000048852	Gm12185	3.59217253	3.776546745	1.815495252	3.887764201
ENSMUSG00000000791	Il12rb1	2.4975315	3.786859935	1.334095894	3.259792225
ENSMUSG00000026271	Gpr35	3.047520239	3.790598883	1.863512742	3.664959574
ENSMUSG00000079311	Gm3222	-0.340530889	3.79747731	-0.79390762	1.001971113
ENSMUSG00000047517	Dmbt1	1.799635126	3.797669445	1.00159609	5.108631064
ENSMUSG00000023045	Soat2	3.818894141	3.801005246	2.954438247	3.222520829
ENSMUSG00000089938	Gm15744	-1.266150865	3.810487683	-0.37853216	-0.898082172
ENSMUSG00000079363	Gbp4	2.510196509	3.811935802	0.311480205	3.557307307
ENSMUSG00000006948	Klk4	1.072119524	3.826443133	0.51457577	3.86563717
ENSMUSG00000030107	Usp18	4.487440996	3.832795297	3.062845817	3.89213283
ENSMUSG00000060802	B2m	2.759495585	3.838166115	1.063792827	1.137441102
ENSMUSG00000035186	Ubd	3.186277202	3.843011136	1.379040579	3.491958505
ENSMUSG00000071552	Tigit	4.651349494	3.867316755	4.119615583	3.509925966
ENSMUSG00000021091	Serpina3n	3.946796107	3.876002267	3.165436725	3.380345334
ENSMUSG00000037033	Clca4	4.093967528	3.883567442	3.591715939	4.144567919
ENSMUSG00000017830	Dhx58	4.016481897	3.889848786	2.769682311	3.632278128
ENSMUSG00000034438	Gbp8	2.849825947	3.905366665	0.607208983	3.839488175
ENSMUSG00000091649	Gm4902	4.529440726	3.916976092	2.674843184	3.754978269
ENSMUSG00000041481	Serpina3g	3.837811969	3.926642638	1.540148756	3.655714634
ENSMUSG00000079012	Serpina3m	4.47585607	3.927409216	3.526880196	3.37484555
ENSMUSG00000024672	Ms4a7	4.227079554	3.942702334	2.703910222	3.22875625
ENSMUSG00000028217	Cdh17	1.869442274	3.953146187	0.583195505	5.371150193
ENSMUSG00000090556	Olfcr753-ps1	2.957856114	3.954829923	-1.40499581	3.394907041
ENSMUSG00000048621	Gm6377	2.637839068	3.9644982	1.044983181	1.784844222
ENSMUSG00000046591	Ticrr	1.552826234	3.965445586	1.032012061	4.011378374
ENSMUSG00000028269	Gbp1	3.444526893	3.966465617	0.993871912	3.961639583
ENSMUSG00000002847	Pla1a	3.215093179	3.968878836	0.937076951	2.332416253
ENSMUSG00000066363	Serpina3f	3.828877986	3.970244001	1.634823876	3.721759303
ENSMUSG00000024397	Aif1	3.785430988	3.977137495	2.226881463	3.53247517
ENSMUSG00000078521	Aunip	2.532098535	3.985490835	0.990241142	3.84701657

ENSMUSG00000048574	Gm5593	1.51460797	3.989827441	0.995849302	4.082120276
ENSMUSG00000044703	Phf11	4.569228415	4.005585244	2.717715572	3.920118872
ENSMUSG00000033576	Apol6	2.376372606	4.005591813	0.608083693	3.455058113
ENSMUSG00000073090	Gm7932	1.732785828	4.018260895	0.676799067	4.024853344
ENSMUSG00000074896	Ifit3	4.712314421	4.021332375	3.100054573	3.870064666
ENSMUSG00000028268	Gbp3	3.570849181	4.021950773	1.672639112	3.981600572
ENSMUSG00000035818	9930023K05Rik	3.610317531	4.037045094	3.588040163	2.388616653
ENSMUSG00000032690	Oas2	4.520495913	4.053017658	3.667475226	3.957066822
ENSMUSG00000031762	Mt2	2.643853797	4.060624194	2.509980291	3.568959265
ENSMUSG00000090881	Gm6904	4.918227354	4.069568063	3.009711525	3.986438389
ENSMUSG00000045932	Ifit2	5.151889782	4.075219644	2.728756446	3.86823402
ENSMUSG00000078236	-	3.589729738	4.075317688	1.523370784	3.484561836
ENSMUSG00000090125	Pou3f1	3.589272452	4.076301897	1.522673804	3.487265575
ENSMUSG00000059179	Gm8991	2.104943546	4.085407924	0.984766623	4.391262401
ENSMUSG00000057346	Apol9b	4.168150169	4.089178947	2.92095222	3.793321298
ENSMUSG00000083249	Gm14623	0	4.095105817	0	0
ENSMUSG00000049916	2610318N02Rik	0.183612076	4.095610742	0.123602014	4.546375546
ENSMUSG00000029561	Oas12	3.934390913	4.102190312	2.710124687	3.931992512
ENSMUSG00000078616	Trim30c	5.470618592	4.103375507	3.670035605	4.511897659
ENSMUSG00000020641	Rsad2	6.616465906	4.113581616	4.646471701	4.20940434
ENSMUSG00000018486	Wnt9b	0.503419022	4.115845479	-0.12882275	1.841731042
ENSMUSG00000013643	Lypd8	3.94623766	4.132595913	4.400830605	4.744116217
ENSMUSG00000018907	Alox12e	1.073464855	4.151014415	0.908420757	3.775324747
ENSMUSG00000026285	Pdcd1	2.192570322	4.154263033	1.766929992	3.956658509
ENSMUSG00000023151	Lrrc69	0.106668853	4.167941354	0	-0.096658708
ENSMUSG00000090231	Cfb	4.813602344	4.170875534	3.403259354	3.804952265
ENSMUSG00000037145	2210407C18Rik	1.08719804	4.171526163	0.988449111	5.127420607
ENSMUSG00000052212	Cd177	5.172152471	4.198998785	4.398627557	4.245405331
ENSMUSG00000045587	BC049730	5.214278409	4.21416985	4.714305918	4.700656165
ENSMUSG00000031898	Dpep3	1.748452885	4.223933422	0.352883173	2.518403263
ENSMUSG00000044201	Cdc25c	2.09972864	4.225096383	1.141132053	4.619413156
ENSMUSG00000026535	Ifi202b	4.013066326	4.228013525	2.273437872	4.06665823
ENSMUSG00000063388	BC023105	5.172476068	4.238673186	2.277945955	4.84392889
ENSMUSG00000082116	Gm12188	3.275642123	4.251700472	2.194284985	4.275006616
ENSMUSG00000037628	Cdkn3	1.790093337	4.251978572	1.277387196	3.164168771
ENSMUSG00000078921	Tgtp2	3.436613425	4.25696572	1.680427881	4.361602866
ENSMUSG00000026981	Il1rn	3.541349444	4.26582573	2.085400287	4.321981329
ENSMUSG00000022026	Olfm4	1.991262149	4.277559277	1.504469694	3.538794005
ENSMUSG00000024679	Ms4a6d	4.525196697	4.287331256	3.011287224	3.954538921
ENSMUSG00000031098	Syt8	1.707650841	4.28795211	2.344436091	3.984580363
ENSMUSG00000026011	Ctla4	3.051423498	4.288395979	2.147152286	4.428123611
ENSMUSG00000078853	Igtp	3.496609411	4.288727888	1.791912652	4.298133724
ENSMUSG00000046879	Irgm1	3.769934744	4.294891718	2.066273834	4.137511397
ENSMUSG00000025044	Msr1	3.764069321	4.31087926	2.148659371	3.963172544
ENSMUSG00000090942	F830016B08Rik	4.525822373	4.342506427	2.571687715	4.254600914
ENSMUSG00000027379	Bub1	1.649180788	4.343253494	0.466596915	4.546747022
ENSMUSG00000016529	Il10	2.299560862	4.360252521	0.897797432	4.392136915
ENSMUSG00000029379	Cxcl3	7.06843363	4.378061697	5.584160511	4.675407659

ENSMUSG0000000817	Fasl	2.380096508	4.379310112	1.353742077	4.124808985
ENSMUSG00000078922	Tgtp1	3.550434542	4.384424092	1.772417172	4.502316964
ENSMUSG00000092021	Gbp11	3.335142672	4.384448035	1.164972525	4.18814226
ENSMUSG00000082292	Gm12250	3.597985753	4.38834381	1.722720822	4.443021369
ENSMUSG00000034459	Ifit1	4.918661501	4.395545209	3.346286398	4.616270379
ENSMUSG00000057596	Trim30d	5.102585943	4.398772547	2.987664503	4.277790552
ENSMUSG00000066861	Oas1g	3.497547952	4.420556667	2.041165293	3.31978139
ENSMUSG00000022322	Shcbp1	1.26686504	4.43669171	-0.05815014	4.595082871
ENSMUSG00000068246	Apol9a	4.232474284	4.440423943	2.982289271	4.117697224
ENSMUSG00000058717	Gm4763	2.653864858	4.450556113	2.238150956	4.255343451
ENSMUSG00000034987	Hrh2	3.050400273	4.452175533	2.10561366	6.479219478
ENSMUSG00000016496	Cd274	3.752327953	4.463668168	1.275868622	4.297703714
ENSMUSG00000070427	Il18bp	4.099736528	4.488978941	1.909010366	4.052582038
ENSMUSG00000001131	Timp1	5.819121091	4.510629018	5.136144979	2.94170068
ENSMUSG00000046031	Fam26f	5.087021013	4.510809733	2.192691435	4.511886729
ENSMUSG00000023341	Mx2	4.905096892	4.569021652	3.533356985	4.718591876
ENSMUSG00000039364	Sectm1b	8.627200838	4.591313419	7.965709015	4.799935872
ENSMUSG00000085164	-	4.698492583	4.602661473	3.210620897	4.238056919
ENSMUSG00000038037	Socs1	3.658016955	4.611361762	2.2033132	4.516085683
ENSMUSG00000006403	Adamts4	4.673391231	4.619731638	4.01495766	4.379180932
ENSMUSG00000073555	Gm4951	4.669909008	4.626081326	2.561524581	4.514854682
ENSMUSG00000040552	C3ar1	4.602201057	4.638424768	2.610586512	3.474154454
ENSMUSG00000044165	Bcl2l15	2.804240666	4.64328886	1.314727049	3.053566275
ENSMUSG00000079013	Serpina3j	4.690599127	4.653058761	3.221193267	4.23425375
ENSMUSG00000024675	Ms4a4c	5.022628072	4.654453653	3.048309506	4.309666854
ENSMUSG00000079362	Gbp6	3.527147635	4.675506775	1.343273758	4.580922977
ENSMUSG00000091157	Serpina3l-ps	5.026963002	4.687797951	3.592734834	4.434260526
ENSMUSG00000046845	Il1f10	0	4.698424087	0	0
ENSMUSG00000016498	Pdcd1lg2	2.705190182	4.699540968	2.025597293	4.758033242
ENSMUSG00000044162	Tnip3	6.686562245	4.717831592	5.49999861	4.224833759
ENSMUSG00000026358	Rgs1	4.412791435	4.721938816	2.946046271	3.812111985
ENSMUSG00000026166	Ccl20	4.694698513	4.736375033	3.870766819	4.074638565
ENSMUSG00000039146	H28	5.194416325	4.750556985	3.200914882	4.669274149
ENSMUSG00000085977	Gm5970	4.983222145	4.75702677	2.956660332	4.570014411
ENSMUSG00000000247	Lhx2	4.661883573	4.759788097	2.408070957	4.268165323
ENSMUSG00000028965	Tnfrsf9	4.335496284	4.760283847	2.973145845	4.562809462
ENSMUSG00000083885	Gm13213	2.184239083	4.791240019	1.167182118	1.986657712
ENSMUSG00000056494	Cngb3	1.171290107	4.793247456	0.19261965	2.538700776
ENSMUSG00000038067	Csf3	6.644540617	4.793307599	5.852086318	4.4112702
ENSMUSG00000035692	Isg15	5.229906738	4.847203055	3.898397395	4.802480021
ENSMUSG00000050370	Ch25h	4.880609209	4.932807552	3.453807991	4.784704957
ENSMUSG00000026822	Lcn2	5.063977773	4.957621284	3.797908029	4.630836707
ENSMUSG00000024401	Tnf	4.012909399	4.960913432	2.439699804	4.805977366
ENSMUSG00000034730	Bai1	3.809895086	4.970666999	1.813444527	3.849784294
ENSMUSG00000091824	-	5.363727157	4.982285362	2.765438356	4.18704
ENSMUSG00000015947	Fcgr1	5.300079561	4.986049303	3.600211675	4.415510228
ENSMUSG00000070778	Rpl7a-ps8	2.67677317	5.014369839	-0.14665263	1.009186526
ENSMUSG00000053338	Tarm1	2.585382832	5.036867868	0.09752517	5.35510463

ENSMUSG00000040264	Gbp5	4.750811673	5.047864312	2.068101514	4.907038148
ENSMUSG00000041827	Oas11	5.22282845	5.063222314	3.770126172	5.173586214
ENSMUSG00000079597	Gm5483	5.473447706	5.099067921	3.184094852	3.303736549
ENSMUSG00000028037	Ifi44	5.442029223	5.11155823	3.560243702	4.968367674
ENSMUSG00000047197	Gjd3	3.349592976	5.111879045	2.87771648	4.264391804
ENSMUSG00000054588	Gbp10	3.864125778	5.116682305	1.551918629	4.909075155
ENSMUSG00000058427	Cxcl2	5.282454271	5.120601732	4.782911179	4.745278985
ENSMUSG00000079227	Ccr5	4.128895248	5.195410293	2.486852367	3.094081428
ENSMUSG00000042385	Gzmk	2.68252282	5.213697366	1.723253729	4.076930605
ENSMUSG00000070524	Fcrlb	3.876102199	5.227114402	0.712233984	5.178354288
ENSMUSG00000054072	Iigp1	4.454401195	5.29725879	2.260127636	5.178471819
ENSMUSG00000000204	Slfn4	6.305377029	5.350232339	4.521158054	5.094078504
ENSMUSG00000059089	Fcgr4	4.35014077	5.373192631	2.353745148	4.893616379
ENSMUSG00000027514	Zbp1	5.318744156	5.453170568	3.688447515	5.274317547
ENSMUSG00000025498	Irf7	5.392277818	5.561626912	4.077569812	5.163252562
ENSMUSG00000063234	Gpr84	6.941010486	5.572059608	5.083046232	5.70556489
ENSMUSG00000032661	Oas3	5.692483338	5.588069063	4.10259459	5.156112811
ENSMUSG00000071311	Gpr31b	6.315426333	5.606453207	3.744188693	4.856991755
ENSMUSG00000035352	Ccl12	4.953037305	5.744812349	3.60424098	5.749193024
ENSMUSG00000015437	Gzmb	3.790998127	5.746503677	1.9631898	5.102199742
ENSMUSG00000068606	Gm4841	5.943272355	5.857085117	3.54775462	5.953733619
ENSMUSG00000000386	Mx1	6.412416799	5.899084454	4.582947666	5.907964452
ENSMUSG00000082131	-	-0.826635936	5.918464422	3.357640023	1.00650983
ENSMUSG00000082748	-	-0.826635936	5.918464422	-1.91236789	0.029058356
ENSMUSG00000024786	1700123I01Rik	4.533357971	5.926786516	2.247509097	4.799646719
ENSMUSG00000048031	Fcrl5	1.827325302	6.04644595	-0.26363772	5.045015023
ENSMUSG00000045027	Prss22	5.095429201	6.237117185	4.957291689	5.632026118
ENSMUSG00000031551	Ido1	7.098142272	6.362763823	2.497903023	6.100300927
ENSMUSG00000003555	Cyp17a1	0	6.427817323	0	0.889134938
ENSMUSG00000000982	Ccl3	6.113465179	6.47155938	5.101554119	5.627421162
ENSMUSG00000029417	Cxcl9	5.614594957	7.121729261	3.248339533	7.20839688
ENSMUSG00000018930	Ccl4	6.552448392	7.27855129	4.755509095	6.793284219
ENSMUSG00000035373	Ccl7	6.46797104	7.330710982	5.12462868	7.386936701
ENSMUSG00000025165	Sectm1a	7.579445382	7.481087058	6.284434392	7.045293091
ENSMUSG00000027670	Ocstamp	5.65618598	7.489991867	3.667725433	7.169962921
ENSMUSG00000055170	Ifng	4.867481576	7.749999768	0.95665031	7.254588912
ENSMUSG00000035385	Ccl2	6.150871116	7.770060916	4.669265037	7.482848315
ENSMUSG00000079186	Gzmc	3.006084758	7.834205876	2.173657288	4.107104898
ENSMUSG00000082976	Gm15056	5.124377768	7.866976983	3.34336518	7.507383108
ENSMUSG00000074115	Saa1	7.830060209	7.89707669	5.822140188	7.590709027
ENSMUSG00000022126	Irg1	8.534669131	8.493591582	6.55932073	8.394126411
ENSMUSG00000034855	Cxcl10	8.202354846	9.073811865	5.840047953	9.324561336
ENSMUSG00000040026	Saa3	10.38155485	9.298371217	6.311413194	7.531918016

note:blue color reprints downregulated genes;

red color represents upregulated genes;

blank color represents different changing trend in Jia6/10 and LN/10 infection group on day 3 and day5.

**Table S4. Gene ontology (GO) analysis of differentially expressed genes after virus infection**

GO ID	GO Term	Up-regulated genes			Down-regulated genes		
		Corrected p-value	No. of genes	Gene list	Corrected p-value	No. of genes	Gene list
<b>Biological Process</b>							
GO:0002694	regulation of leukocyte activation	3.61E-09	39	ENSMUSG00000036931, ENSMUSG00000040528, ENSMUSG00000073412, ENSMUSG00000049103, ENSMUSG00000016529, ENSMUSG00000038179, ENSMUSG00000035385, ENSMUSG00000075122, ENSMUSG00000028874, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000020053, ENSMUSG00000034652, ENSMUSG00000027398, ENSMUSG00000031551, ENSMUSG00000026770, ENSMUSG00000025473, ENSMUSG00000016496, ENSMUSG00000044701, ENSMUSG00000055170, ENSMUSG00000001444, ENSMUSG00000027843, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000058715, ENSMUSG00000071552, ENSMUSG00000026573, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000022901, ENSMUSG00000026656, ENSMUSG00000029075, ENSMUSG00000037440, ENSMUSG00000030124, ENSMUSG00000016498, ENSMUSG00000022876, ENSMUSG00000024397, ENSMUSG00000048806, ENSMUSG00000025746	1	7	ENSMUSG00000063632, ENSMUSG00000042812, ENSMUSG00000025889, ENSMUSG00000024653, ENSMUSG00000024028, ENSMUSG00000026532, ENSMUSG000000017697

GO:0052169	pathogen-associated molecular pattern dependent modulation by symbiont of host innate immune response	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	
GO:0032680	regulation of tumor necrosis factor production	7.65E-07	17	ENSMUSG00000055170, ENSMUSG00000028602, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000030525, ENSMUSG00000051439, ENSMUSG00000049103, ENSMUSG00000016529, ENSMUSG00000000982, ENSMUSG0000004296, ENSMUSG00000053175, ENSMUSG00000044827, ENSMUSG00000018930, ENSMUSG00000079227, ENSMUSG00000030921	1	2	ENSMUSG00000022878, ENSMUSG00000024526
GO:0060415	muscle tissue morphogenesis	1	0		0.000780233	13	ENSMUSG00000035458, ENSMUSG00000032366, ENSMUSG00000027470, ENSMUSG00000046714, ENSMUSG00000059741, ENSMUSG00000091898, ENSMUSG00000053093, ENSMUSG00000006235, ENSMUSG00000026418, ENSMUSG00000007877, ENSMUSG00000021909, ENSMUSG00000040289, ENSMUSG00000040752
GO:0002698	negative regulation of immune effector process	1.05E-05	15	ENSMUSG00000026656, ENSMUSG00000050241, ENSMUSG00000055994, ENSMUSG00000079298, ENSMUSG00000079620, ENSMUSG00000026573, ENSMUSG00000048806, ENSMUSG00000024339, ENSMUSG00000034652, ENSMUSG00000049103, ENSMUSG00000073406, ENSMUSG00000037321,	1	0	

				ENSMUSG00000030111, ENSMUSG00000034459, ENSMUSG00000026770			
GO:0044255	cellular lipid metabolic process	1	9	ENSMUSG00000023913, ENSMUSG00000033847, ENSMUSG0000003484, ENSMUSG00000028751, ENSMUSG00000017146, ENSMUSG00000050370, ENSMUSG00000021322, ENSMUSG00000018907, ENSMUSG00000023045	0.008245682	49	ENSMUSG00000037686, ENSMUSG00000032203, ENSMUSG00000033327, ENSMUSG00000032262, ENSMUSG00000025889, ENSMUSG00000062515, ENSMUSG00000046402, ENSMUSG0000002588, ENSMUSG00000013418, ENSMUSG00000032454, ENSMUSG00000032310, ENSMUSG00000027513, ENSMUSG00000032807, ENSMUSG00000031760, ENSMUSG00000067653, ENSMUSG00000037071, ENSMUSG00000028773, ENSMUSG00000032649, ENSMUSG00000025202, ENSMUSG00000025153, ENSMUSG00000073424, ENSMUSG00000022878, ENSMUSG00000078597, ENSMUSG00000032349, ENSMUSG00000059201, ENSMUSG00000066072, ENSMUSG00000023019, ENSMUSG0000004885, ENSMUSG00000030972, ENSMUSG00000032908, ENSMUSG00000025991, ENSMUSG00000032315, ENSMUSG0000000049, ENSMUSG00000090150, ENSMUSG00000022040, ENSMUSG00000052131, ENSMUSG00000024990, ENSMUSG00000032081, ENSMUSG00000032083, ENSMUSG00000030747, ENSMUSG00000075217, ENSMUSG00000028167, ENSMUSG00000031425, ENSMUSG00000041220, ENSMUSG00000050195, ENSMUSG00000020532, ENSMUSG00000041653, ENSMUSG00000027380,

						ENSMUSG00000012187	
GO:0031347	regulation of defense response	7.16E-19	50	<p>ENSMUSG00000074151, ENSMUSG00000027995, ENSMUSG00000035673, ENSMUSG00000029377, ENSMUSG00000049103, ENSMUSG00000016529, ENSMUSG00000073406, ENSMUSG00000030413, ENSMUSG00000022906, ENSMUSG00000028874, ENSMUSG00000040296, ENSMUSG00000025804, ENSMUSG00000027398, ENSMUSG00000030895, ENSMUSG00000051498, ENSMUSG00000027639, ENSMUSG00000079227, ENSMUSG00000037321, ENSMUSG00000031551, ENSMUSG00000034459, ENSMUSG00000026770, ENSMUSG00000025473, ENSMUSG00000005696, ENSMUSG00000045322, ENSMUSG00000022548, ENSMUSG000000055994, ENSMUSG00000035042, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000024349, ENSMUSG00000030525, ENSMUSG00000026573, ENSMUSG00000021322, ENSMUSG00000000982, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000022901, ENSMUSG00000026656, ENSMUSG00000050241, ENSMUSG00000029371, ENSMUSG00000030124, ENSMUSG00000079298, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000024339, ENSMUSG00000025746, ENSMUSG00000044583, ENSMUSG00000030111, ENSMUSG00000042726</p>	1	13	<p>ENSMUSG00000042812, ENSMUSG00000022868, ENSMUSG00000019326, ENSMUSG00000062515, ENSMUSG00000024653, ENSMUSG00000043496, ENSMUSG00000017697, ENSMUSG00000026715, ENSMUSG00000024028, ENSMUSG00000031980, ENSMUSG00000022878, ENSMUSG00000032076, ENSMUSG00000010047</p>



GO:0010564	regulation of cell cycle process	0.00025071 9	32	<p>ENSMUSG00000017716, ENSMUSG00000058755, ENSMUSG00000024791, ENSMUSG00000027699, ENSMUSG00000029377, ENSMUSG00000026605, ENSMUSG00000068744, ENSMUSG00000019942, ENSMUSG00000045328, ENSMUSG00000030268, ENSMUSG00000017146, ENSMUSG00000027379, ENSMUSG00000027469, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000029414, ENSMUSG00000042489, ENSMUSG00000035186, ENSMUSG00000041431, ENSMUSG00000027306, ENSMUSG00000023015, ENSMUSG00000037474, ENSMUSG00000020897, ENSMUSG00000017499, ENSMUSG00000039981, ENSMUSG00000034394, ENSMUSG00000030867, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000024397, ENSMUSG00000072082, ENSMUSG00000032218</p>	1	11	<p>ENSMUSG00000022996, ENSMUSG00000010051, ENSMUSG0000005373, ENSMUSG00000035486, ENSMUSG0000007815, ENSMUSG00000025862, ENSMUSG00000036867, ENSMUSG00000042903, ENSMUSG00000032315, ENSMUSG0000001403, ENSMUSG00000023092</p>
GO:0009607	response to biotic stimulus	5.59E-40	92	<p>ENSMUSG00000060802, ENSMUSG00000027995, ENSMUSG00000035692, ENSMUSG00000066861, ENSMUSG00000079563, ENSMUSG00000061232, ENSMUSG00000016529, ENSMUSG00000053977, ENSMUSG00000029605, ENSMUSG00000070034, ENSMUSG00000040253, ENSMUSG00000023341, ENSMUSG00000040296, ENSMUSG00000025804, ENSMUSG00000046718, ENSMUSG00000051498, ENSMUSG00000045932, ENSMUSG00000054072, ENSMUSG00000034855, ENSMUSG00000031551,</p>	1	16	<p>ENSMUSG00000020889, ENSMUSG00000031495, ENSMUSG00000025889, ENSMUSG00000034783, ENSMUSG00000010051, ENSMUSG00000079278, ENSMUSG00000035486, ENSMUSG00000059230, ENSMUSG00000028036, ENSMUSG00000015405, ENSMUSG00000037071, ENSMUSG00000036216, ENSMUSG00000025991, ENSMUSG00000056978, ENSMUSG00000035459, ENSMUSG00000010047</p>

				ENSMUSG00000039236, ENSMUSG00000069874, ENSMUSG00000045322, ENSMUSG00000025492, ENSMUSG00000079362, ENSMUSG00000055994, ENSMUSG00000030149, ENSMUSG00000028270, ENSMUSG00000038357, ENSMUSG00000026896, ENSMUSG0000000982, ENSMUSG00000053175, ENSMUSG00000025498, ENSMUSG00000026656, ENSMUSG0000003283, ENSMUSG00000028268, ENSMUSG00000022622, ENSMUSG00000079017, ENSMUSG00000048806, ENSMUSG00000000386, ENSMUSG00000044583, ENSMUSG00000022126, ENSMUSG00000053219, ENSMUSG00000024079, ENSMUSG00000027832, ENSMUSG00000040613, ENSMUSG00000026822, ENSMUSG00000058427, ENSMUSG00000060747, ENSMUSG00000029417, ENSMUSG00000038209, ENSMUSG00000029298, ENSMUSG00000051439, ENSMUSG00000037202, ENSMUSG00000035385, ENSMUSG00000032691, ENSMUSG00000020641, ENSMUSG00000020638, ENSMUSG00000030413, ENSMUSG00000028874, ENSMUSG00000029915, ENSMUSG00000027398, ENSMUSG00000059089, ENSMUSG00000027639, ENSMUSG00000079227, ENSMUSG00000027514, ENSMUSG00000034459, ENSMUSG00000028362, ENSMUSG00000055170, ENSMUSG00000028269, ENSMUSG00000026104, ENSMUSG00000035042,			
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				ENSMUSG00000056529, ENSMUSG00000058715, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000076612, ENSMUSG00000004296, ENSMUSG00000015947, ENSMUSG00000022901, ENSMUSG00000044827, ENSMUSG00000041515, ENSMUSG00000023078, ENSMUSG00000029371, ENSMUSG00000032661, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000054588, ENSMUSG00000024339, ENSMUSG00000025746, ENSMUSG00000041347, ENSMUSG00000026177			
GO:0042110	T cell activation	6.72E-05	24	ENSMUSG00000055170, ENSMUSG00000060802, ENSMUSG00000074148, ENSMUSG00000027843, ENSMUSG0000001444, ENSMUSG00000071005, ENSMUSG00000071068, ENSMUSG00000030525, ENSMUSG00000026573, ENSMUSG00000018899, ENSMUSG00000004296, ENSMUSG00000053977, ENSMUSG00000053175, ENSMUSG00000022901, ENSMUSG00000029075, ENSMUSG00000062007, ENSMUSG00000030786, ENSMUSG00000034116, ENSMUSG00000038418, ENSMUSG00000025746, ENSMUSG00000059089, ENSMUSG00000049109, ENSMUSG00000026177, ENSMUSG00000028362	1	2	ENSMUSG00000061311, ENSMUSG00000017697
GO:0048247	lymphocyte chemotaxis	7.07E-08	9	ENSMUSG00000050232, ENSMUSG00000023078, ENSMUSG00000035042, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000074115, ENSMUSG00000000982, ENSMUSG00000035385,	1	0	

				ENSMUSG00000025473			
GO:0010466	negative regulation of peptidase activity	0.18103012 1	21	ENSMUSG00000017716, ENSMUSG00000074148, ENSMUSG00000029664, ENSMUSG00000066363, ENSMUSG00000021403, ENSMUSG00000041481, ENSMUSG00000059657, ENSMUSG00000068129, ENSMUSG00000041536, ENSMUSG00000001131, ENSMUSG00000058207, ENSMUSG00000079597, ENSMUSG00000079012, ENSMUSG00000061947, ENSMUSG00000025746, ENSMUSG00000020053, ENSMUSG00000066364, ENSMUSG00000021091, ENSMUSG00000030111, ENSMUSG00000066361, ENSMUSG00000051949	0.000347907	27	ENSMUSG00000025860, ENSMUSG00000055653, ENSMUSG00000022868, ENSMUSG00000025889, ENSMUSG00000026715, ENSMUSG00000090877, ENSMUSG00000044594, ENSMUSG00000058017, ENSMUSG00000039278, ENSMUSG00000061311, ENSMUSG00000026874, ENSMUSG00000059956, ENSMUSG00000067006, ENSMUSG00000023336, ENSMUSG00000031760, ENSMUSG00000026327, ENSMUSG00000028356, ENSMUSG00000030359, ENSMUSG00000058260, ENSMUSG00000055561, ENSMUSG00000022871, ENSMUSG00000019278, ENSMUSG00000070531, ENSMUSG00000027442, ENSMUSG00000032060, ENSMUSG00000036867, ENSMUSG00000031980
GO:0032946	positive regulation of mononuclear cell proliferation	0.00828999	15	ENSMUSG00000055170, ENSMUSG00000029075, ENSMUSG00000075122, ENSMUSG00000035042, ENSMUSG00000016498, ENSMUSG00000024397, ENSMUSG00000026573, ENSMUSG00000020053, ENSMUSG00000025746, ENSMUSG00000027398, ENSMUSG00000049103, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000026770, ENSMUSG00000022901	1	2	ENSMUSG00000026532, ENSMUSG00000017697
GO:0003208	cardiac ventricle morphogenesis	1	0		0.001186552	13	ENSMUSG00000042812, ENSMUSG00000035458, ENSMUSG00000032366, ENSMUSG00000046714, ENSMUSG00000059741, ENSMUSG00000063632,

						ENSMUSG00000091898, ENSMUSG00000053093, ENSMUSG0000006235, ENSMUSG00000026418, ENSMUSG00000021909, ENSMUSG00000040289, ENSMUSG00000040752	
GO:0044057	regulation of system process	1	18	ENSMUSG00000055170, ENSMUSG00000038642, ENSMUSG00000030525, ENSMUSG00000016529, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000006398, ENSMUSG00000028072, ENSMUSG00000045471, ENSMUSG00000034394, ENSMUSG00000024401, ENSMUSG00000038418, ENSMUSG00000024397, ENSMUSG00000025746, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000059089, ENSMUSG00000041324	3.04E-06	47	ENSMUSG00000020123, ENSMUSG00000030302, ENSMUSG00000030730, ENSMUSG00000032366, ENSMUSG00000025889, ENSMUSG00000007122, ENSMUSG00000032511, ENSMUSG00000029236, ENSMUSG00000090877, ENSMUSG00000020524, ENSMUSG00000090639, ENSMUSG00000032554, ENSMUSG00000033577, ENSMUSG00000024534, ENSMUSG00000021909, ENSMUSG00000024028, ENSMUSG00000033208, ENSMUSG00000061086, ENSMUSG00000048142, ENSMUSG00000017697, ENSMUSG00000036867, ENSMUSG00000037010, ENSMUSG00000029361, ENSMUSG00000073465, ENSMUSG00000024027, ENSMUSG00000022878, ENSMUSG00000040752, ENSMUSG00000064179, ENSMUSG00000059201, ENSMUSG00000035458, ENSMUSG00000031214, ENSMUSG00000027470, ENSMUSG00000027077, ENSMUSG00000091898, ENSMUSG00000025991, ENSMUSG00000053093, ENSMUSG0000000889, ENSMUSG00000038239, ENSMUSG00000061723, ENSMUSG00000031144, ENSMUSG00000031097, ENSMUSG00000032356, ENSMUSG00000032083, ENSMUSG00000049281,

							ENSMUSG00000059741, ENSMUSG00000026418, ENSMUSG00000031980
GO:002709	regulation of T cell mediated immunity	0.000421958	11	ENSMUSG00000073411, ENSMUSG00000060802, ENSMUSG00000055994, ENSMUSG00000079620, ENSMUSG00000024339, ENSMUSG00000048806, ENSMUSG00000026573, ENSMUSG00000061232, ENSMUSG00000004296, ENSMUSG00000037321, ENSMUSG00000067212	1	0	
GO:0022403	cell cycle phase	3.26E-15	63	ENSMUSG00000017716, ENSMUSG00000015880, ENSMUSG00000024791, ENSMUSG00000007080, ENSMUSG00000050107, ENSMUSG00000045273, ENSMUSG00000024989, ENSMUSG00000029377, ENSMUSG00000026605, ENSMUSG00000068744, ENSMUSG00000019942, ENSMUSG00000045328, ENSMUSG00000006398, ENSMUSG00000031004, ENSMUSG00000028873, ENSMUSG00000002055, ENSMUSG00000033644, ENSMUSG00000027379, ENSMUSG00000024056, ENSMUSG00000027469, ENSMUSG00000027331, ENSMUSG00000027715, ENSMUSG00000036912, ENSMUSG00000041324, ENSMUSG00000029414, ENSMUSG00000044201, ENSMUSG00000024014, ENSMUSG00000026683, ENSMUSG00000023505, ENSMUSG00000050957, ENSMUSG00000039748, ENSMUSG00000026039, ENSMUSG00000041431, ENSMUSG00000040084, ENSMUSG00000036223, ENSMUSG00000027306,	1	9	ENSMUSG00000022996, ENSMUSG00000062380, ENSMUSG00000031176, ENSMUSG00000036782, ENSMUSG00000042903, ENSMUSG00000025862, ENSMUSG00000007815, ENSMUSG00000001403, ENSMUSG00000071470

				<p>ENSMUSG00000037313, ENSMUSG00000024795,  ENSMUSG00000023015, ENSMUSG00000078763,  ENSMUSG00000069910, ENSMUSG00000025001,  ENSMUSG00000048922, ENSMUSG00000051378,  ENSMUSG00000020897, ENSMUSG00000031898,  ENSMUSG00000017499, ENSMUSG00000020415,  ENSMUSG00000071350, ENSMUSG00000037544,  ENSMUSG00000028678, ENSMUSG00000030867,  ENSMUSG00000012443, ENSMUSG00000028068,  ENSMUSG00000074476, ENSMUSG00000017861,  ENSMUSG00000023940, ENSMUSG00000072082,  ENSMUSG00000026779, ENSMUSG00000033952,  ENSMUSG00000058290, ENSMUSG00000032218,  ENSMUSG00000027496</p>			
GO:0000278	mitotic cell cycle	8.67E-15	54	<p>ENSMUSG00000017716, ENSMUSG00000015880,  ENSMUSG00000024791, ENSMUSG0000007080,  ENSMUSG00000050107, ENSMUSG00000045273,  ENSMUSG00000024989, ENSMUSG00000026605,  ENSMUSG00000068744, ENSMUSG00000019942,  ENSMUSG00000045328, ENSMUSG00000006398,  ENSMUSG00000028873, ENSMUSG00000002055,  ENSMUSG00000027379, ENSMUSG00000024056,  ENSMUSG00000027469, ENSMUSG00000027331,  ENSMUSG00000027715, ENSMUSG00000041324,  ENSMUSG00000029414, ENSMUSG00000044201,  ENSMUSG00000024014, ENSMUSG00000026683,</p>	1	8	<p>ENSMUSG00000007815, ENSMUSG00000025862,  ENSMUSG00000042903, ENSMUSG00000022996,  ENSMUSG00000001403, ENSMUSG00000062380,  ENSMUSG000000031176, ENSMUSG00000036782</p>

				ENSMUSG00000023505, ENSMUSG000000041431, ENSMUSG00000040084, ENSMUSG000000036223, ENSMUSG00000027306, ENSMUSG000000023015, ENSMUSG00000024795, ENSMUSG000000078763, ENSMUSG00000069910, ENSMUSG000000025001, ENSMUSG00000048922, ENSMUSG000000051378, ENSMUSG00000020897, ENSMUSG000000017499, ENSMUSG00000071350, ENSMUSG000000020415, ENSMUSG00000037544, ENSMUSG000000028678, ENSMUSG00000012443, ENSMUSG000000030867, ENSMUSG00000074476, ENSMUSG000000028068, ENSMUSG00000017861, ENSMUSG000000023940, ENSMUSG00000072082, ENSMUSG000000026779, ENSMUSG00000033952, ENSMUSG000000058290, ENSMUSG00000032218, ENSMUSG000000027496			
GO:0007059	chromosome segregation	1.68E-07	23	ENSMUSG00000017716, ENSMUSG000000026683, ENSMUSG00000015880, ENSMUSG000000024791, ENSMUSG00000050107, ENSMUSG000000045273, ENSMUSG00000026039, ENSMUSG000000041431, ENSMUSG00000036223, ENSMUSG000000026605, ENSMUSG00000027306, ENSMUSG00000069910, ENSMUSG00000068744, ENSMUSG000000045328, ENSMUSG00000071350, ENSMUSG000000017146, ENSMUSG00000020415, ENSMUSG000000028678, ENSMUSG00000002055, ENSMUSG000000027379, ENSMUSG00000024056, ENSMUSG000000023940,	1	0	



				ENSMUSG00000058290			
GO:0060537	muscle tissue development	1	2	ENSMUSG00000022587, ENSMUSG00000020053	9.14E-05	29	ENSMUSG00000009471, ENSMUSG00000021506, ENSMUSG00000035458, ENSMUSG00000032366, ENSMUSG00000027470, ENSMUSG00000035606, ENSMUSG00000052911, ENSMUSG00000031274, ENSMUSG00000032340, ENSMUSG00000046714, ENSMUSG00000007815, ENSMUSG00000091898, ENSMUSG00000030672, ENSMUSG00000053093, ENSMUSG00000021909, ENSMUSG00000031972, ENSMUSG00000024990, ENSMUSG00000022996, ENSMUSG00000045103, ENSMUSG00000059741, ENSMUSG00000026459, ENSMUSG00000049641, ENSMUSG00000006235, ENSMUSG00000026418, ENSMUSG00000007877, ENSMUSG00000031980, ENSMUSG00000040289, ENSMUSG00000038119, ENSMUSG00000040752
GO:0044403	symbiosis, encompassing mutualism through parasitism	1.18E-07	19	ENSMUSG00000027995, ENSMUSG00000028269, ENSMUSG00000045322, ENSMUSG00000079362, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000028270, ENSMUSG00000029298, ENSMUSG00000038357, ENSMUSG00000000982, ENSMUSG00000018930, ENSMUSG00000028268, ENSMUSG00000040253, ENSMUSG00000024339, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000037321, ENSMUSG00000079227, ENSMUSG00000034459	1	5	ENSMUSG00000039952, ENSMUSG00000029368, ENSMUSG00000032216, ENSMUSG00000010047, ENSMUSG00000015405

GO:0006935	chemotaxis	4.13E-07	37	<p>ENSMUSG00000035352, ENSMUSG00000048534,  ENSMUSG00000058427, ENSMUSG00000029379,  ENSMUSG00000071005, ENSMUSG00000009185,  ENSMUSG00000049103, ENSMUSG00000074115,  ENSMUSG00000035385, ENSMUSG00000017724,  ENSMUSG00000050232, ENSMUSG00000026166,  ENSMUSG00000028072, ENSMUSG00000018930,  ENSMUSG00000030786, ENSMUSG00000000247,  ENSMUSG00000025804, ENSMUSG00000027398,  ENSMUSG00000034855, ENSMUSG00000025473,  ENSMUSG00000029005, ENSMUSG00000018920,  ENSMUSG00000055170, ENSMUSG00000035042,  ENSMUSG00000056529, ENSMUSG00000058715,  ENSMUSG00000070691, ENSMUSG00000030077,  ENSMUSG00000026573, ENSMUSG00000040552,  ENSMUSG00000035373, ENSMUSG00000029304,  ENSMUSG00000000982, ENSMUSG00000023078,  ENSMUSG00000037868, ENSMUSG00000029380,  ENSMUSG00000079700</p>	1	10	<p>ENSMUSG00000031380, ENSMUSG00000025810,  ENSMUSG00000032547, ENSMUSG00000062380,  ENSMUSG00000052911, ENSMUSG00000031780,  ENSMUSG00000041012, ENSMUSG00000023235,  ENSMUSG00000026874, ENSMUSG00000041688</p>
GO:0051704	multi-organism process	4.25E-30	95	<p>ENSMUSG00000060802, ENSMUSG00000027995,  ENSMUSG00000035692, ENSMUSG00000066861,  ENSMUSG00000079563, ENSMUSG00000061232,  ENSMUSG00000016529, ENSMUSG00000053977,  ENSMUSG00000018930, ENSMUSG00000029605,  ENSMUSG00000070034, ENSMUSG00000040253,  ENSMUSG00000023341, ENSMUSG00000040296,</p>	1	24	<p>ENSMUSG00000020123, ENSMUSG00000031495,  ENSMUSG00000029368, ENSMUSG00000025889,  ENSMUSG00000034783, ENSMUSG00000046532,  ENSMUSG00000024039, ENSMUSG00000059230,  ENSMUSG00000036216, ENSMUSG00000025991,  ENSMUSG00000039952, ENSMUSG00000035459,  ENSMUSG00000021319, ENSMUSG00000031996,</p>

			ENSMUSG00000025804, ENSMUSG00000046718, ENSMUSG00000051498, ENSMUSG00000045932, ENSMUSG00000054072, ENSMUSG00000037321, ENSMUSG00000034855, ENSMUSG00000031551, ENSMUSG00000039236, ENSMUSG00000069874, ENSMUSG00000045322, ENSMUSG00000025492, ENSMUSG00000079362, ENSMUSG00000055994, ENSMUSG00000030149, ENSMUSG00000028270, ENSMUSG00000038357, ENSMUSG00000026896, ENSMUSG00000000982, ENSMUSG00000053175, ENSMUSG00000025498, ENSMUSG00000026656, ENSMUSG0000003283, ENSMUSG00000028268, ENSMUSG00000079017, ENSMUSG00000048806, ENSMUSG00000000386, ENSMUSG00000044583, ENSMUSG00000022126, ENSMUSG00000053219, ENSMUSG00000024079, ENSMUSG00000027832, ENSMUSG00000040613, ENSMUSG00000026822, ENSMUSG00000058427, ENSMUSG00000060747, ENSMUSG00000029417, ENSMUSG00000038209, ENSMUSG00000029298, ENSMUSG00000051439, ENSMUSG00000037202, ENSMUSG00000035385, ENSMUSG00000032691, ENSMUSG00000020641, ENSMUSG00000020638, ENSMUSG00000030413, ENSMUSG00000028874, ENSMUSG00000029915, ENSMUSG00000027398, ENSMUSG00000059089, ENSMUSG00000027639, ENSMUSG00000079227,			ENSMUSG00000020889, ENSMUSG00000010051, ENSMUSG00000032216, ENSMUSG00000037071, ENSMUSG00000015405, ENSMUSG00000028036, ENSMUSG00000056978, ENSMUSG00000006235, ENSMUSG00000057880, ENSMUSG00000010047
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				<p>ENSMUSG00000027514, ENSMUSG00000034459,  ENSMUSG00000028362, ENSMUSG00000055170,  ENSMUSG00000028269, ENSMUSG00000026104,  ENSMUSG00000035042, ENSMUSG00000056529,  ENSMUSG00000058715, ENSMUSG00000024349,  ENSMUSG00000026573, ENSMUSG00000076612,  ENSMUSG0000004296, ENSMUSG00000015947,  ENSMUSG00000022901, ENSMUSG00000044827,  ENSMUSG00000041515, ENSMUSG00000023078,  ENSMUSG00000029371, ENSMUSG00000032661,  ENSMUSG00000034394, ENSMUSG00000036986,  ENSMUSG00000024401, ENSMUSG00000054588,  ENSMUSG00000024339, ENSMUSG00000025746,  ENSMUSG00000041347, ENSMUSG00000030111,  ENSMUSG00000026177</p>			
GO:0050776	regulation of immune response	3.00E-25	64	<p>ENSMUSG00000060802, ENSMUSG00000074151,  ENSMUSG00000036905, ENSMUSG00000074148,  ENSMUSG00000027995, ENSMUSG00000036887,  ENSMUSG00000029377, ENSMUSG00000049103,  ENSMUSG00000061232, ENSMUSG00000016529,  ENSMUSG00000073406, ENSMUSG00000053063,  ENSMUSG00000073411, ENSMUSG00000030413,  ENSMUSG00000022906, ENSMUSG00000028874,  ENSMUSG00000030365, ENSMUSG00000026011,  ENSMUSG00000025804, ENSMUSG00000034652,  ENSMUSG00000030895, ENSMUSG00000051498,</p>	1	9	<p>ENSMUSG00000042812, ENSMUSG00000061780,  ENSMUSG00000043496, ENSMUSG00000032083,  ENSMUSG00000017697, ENSMUSG00000090877,  ENSMUSG00000046834, ENSMUSG00000026874,  ENSMUSG00000032076</p>

				<p>ENSMUSG00000027639, ENSMUSG00000037321,  ENSMUSG00000031551, ENSMUSG00000026770,  ENSMUSG00000067212, ENSMUSG00000025473,  ENSMUSG00000005696, ENSMUSG00000044701,  ENSMUSG00000055170, ENSMUSG00000045322,  ENSMUSG00000001444, ENSMUSG00000027843,  ENSMUSG00000092005, ENSMUSG00000040751,  ENSMUSG00000055994, ENSMUSG00000058715,  ENSMUSG00000030149, ENSMUSG00000024349,  ENSMUSG00000040552, ENSMUSG00000026573,  ENSMUSG00000024371, ENSMUSG00000004296,  ENSMUSG00000000791, ENSMUSG00000055172,  ENSMUSG00000015947, ENSMUSG00000022901,  ENSMUSG00000026656, ENSMUSG00000050241,  ENSMUSG00000030124, ENSMUSG00000079298,  ENSMUSG00000079620, ENSMUSG00000024401,  ENSMUSG00000090231, ENSMUSG00000022876,  ENSMUSG00000048806, ENSMUSG00000024339,  ENSMUSG00000044583, ENSMUSG00000025746,  ENSMUSG00000030111, ENSMUSG00000042726,  ENSMUSG00000049109, ENSMUSG00000026177</p>			
GO:0051856	adhesion to symbiont	0.00051139 6	6	<p>ENSMUSG00000040253, ENSMUSG00000028270,  ENSMUSG00000028269, ENSMUSG00000029298,  ENSMUSG00000079362, ENSMUSG00000028268</p>	1	0	
GO:0002526	acute inflammatory response	0.00389412 6	11	<p>ENSMUSG00000040026, ENSMUSG00000040017,  ENSMUSG00000037440, ENSMUSG00000030017,</p>	1	0	

				ENSMUSG00000025746, ENSMUSG00000027398, ENSMUSG00000029380, ENSMUSG00000074115, ENSMUSG00000057465, ENSMUSG00000026981, ENSMUSG00000015947			
GO:0048583	regulation of response to stimulus	3.31E-09	134	ENSMUSG00000036931, ENSMUSG00000027995, ENSMUSG00000036887, ENSMUSG00000027699, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000053977, ENSMUSG00000022831, ENSMUSG0000000817, ENSMUSG00000022906, ENSMUSG0000001123, ENSMUSG00000028071, ENSMUSG00000040296, ENSMUSG00000020053, ENSMUSG00000037321, ENSMUSG00000035365, ENSMUSG00000031551, ENSMUSG00000053395, ENSMUSG00000025473, ENSMUSG00000038037, ENSMUSG00000045322, ENSMUSG00000027368, ENSMUSG0000001444, ENSMUSG00000055994, ENSMUSG00000030149, ENSMUSG00000000982, ENSMUSG00000026656, ENSMUSG00000023913, ENSMUSG00000030124, ENSMUSG00000028068, ENSMUSG00000038418, ENSMUSG00000022876, ENSMUSG00000042345, ENSMUSG00000074151, ENSMUSG00000036905, ENSMUSG00000071005, ENSMUSG00000046845, ENSMUSG00000029377, ENSMUSG00000073406, ENSMUSG00000053063, ENSMUSG00000030413, ENSMUSG00000062007, ENSMUSG00000027398, ENSMUSG00000027639,	1	95	ENSMUSG00000009471, ENSMUSG00000033327, ENSMUSG00000032547, ENSMUSG00000025889, ENSMUSG00000062515, ENSMUSG00000046532, ENSMUSG00000026715, ENSMUSG00000090877, ENSMUSG00000039952, ENSMUSG00000037188, ENSMUSG00000090639, ENSMUSG00000026983, ENSMUSG00000061393, ENSMUSG00000071317, ENSMUSG00000026874, ENSMUSG00000039004, ENSMUSG00000033208, ENSMUSG00000059495, ENSMUSG00000089865, ENSMUSG00000031760, ENSMUSG00000029195, ENSMUSG00000043496, ENSMUSG00000017697, ENSMUSG00000044037, ENSMUSG00000036867, ENSMUSG00000040289, ENSMUSG00000032076, ENSMUSG00000022878, ENSMUSG00000025860, ENSMUSG00000042812, ENSMUSG00000059201, ENSMUSG00000022868, ENSMUSG00000031214, ENSMUSG00000027470, ENSMUSG00000026984, ENSMUSG00000001494, ENSMUSG00000059327, ENSMUSG00000052305, ENSMUSG0000000049, ENSMUSG00000050164, ENSMUSG00000032422, ENSMUSG00000032356, ENSMUSG00000032083, ENSMUSG00000059481,

			ENSMUSG00000034459, ENSMUSG00000029005, ENSMUSG00000055170, ENSMUSG00000027843, ENSMUSG00000035042, ENSMUSG00000035186, ENSMUSG00000058715, ENSMUSG00000026475, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000023078, ENSMUSG00000034394, ENSMUSG00000079298, ENSMUSG00000026358, ENSMUSG00000036986, ENSMUSG00000039519, ENSMUSG00000024401, ENSMUSG00000090231, ENSMUSG00000028971, ENSMUSG00000026580, ENSMUSG00000025746, ENSMUSG00000053113, ENSMUSG00000049109, ENSMUSG00000025165, ENSMUSG00000058755, ENSMUSG00000060802, ENSMUSG00000018899, ENSMUSG00000016529, ENSMUSG00000028072, ENSMUSG00000018930, ENSMUSG00000034652, ENSMUSG00000025804, ENSMUSG00000051498, ENSMUSG00000030895, ENSMUSG00000046718, ENSMUSG00000000182, ENSMUSG00000034855, ENSMUSG00000026770, ENSMUSG00000030921, ENSMUSG00000033470, ENSMUSG00000044701, ENSMUSG00000005696, ENSMUSG00000040751, ENSMUSG00000022548, ENSMUSG00000030525, ENSMUSG00000040552, ENSMUSG00000035373, ENSMUSG00000021322, ENSMUSG00000024371, ENSMUSG00000055172, ENSMUSG00000050241,			ENSMUSG00000031355, ENSMUSG00000054196, ENSMUSG00000052374, ENSMUSG00000025265, ENSMUSG00000031980, ENSMUSG00000040412, ENSMUSG00000031380, ENSMUSG00000025810, ENSMUSG00000029368, ENSMUSG00000001995, ENSMUSG00000055980, ENSMUSG00000061780, ENSMUSG00000046714, ENSMUSG00000031841, ENSMUSG00000021319, ENSMUSG00000032554, ENSMUSG00000024028, ENSMUSG00000041688, ENSMUSG00000021055, ENSMUSG00000031996, ENSMUSG00000020889, ENSMUSG00000020427, ENSMUSG0000005705, ENSMUSG00000022996, ENSMUSG00000031489, ENSMUSG00000001300, ENSMUSG00000032216, ENSMUSG00000020623, ENSMUSG00000032064, ENSMUSG00000063632, ENSMUSG00000024386, ENSMUSG00000046834, ENSMUSG00000073465, ENSMUSG00000038119, ENSMUSG00000073424, ENSMUSG00000055653, ENSMUSG00000019326, ENSMUSG00000046818, ENSMUSG00000032570, ENSMUSG00000032911, ENSMUSG00000024039, ENSMUSG00000032558, ENSMUSG00000025386, ENSMUSG00000007815, ENSMUSG00000040146, ENSMUSG00000025656, ENSMUSG00000031144, ENSMUSG00000024653, ENSMUSG00000058914, ENSMUSG00000020052, ENSMUSG00000010047
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GO:0051223	regulation of protein transport	0.00013991 7	29	<p>ENSMUSG00000030142, ENSMUSG00000055170,  ENSMUSG00000027995, ENSMUSG00000045322,  ENSMUSG00000055994, ENSMUSG00000022548,  ENSMUSG00000071005, ENSMUSG00000027699,  ENSMUSG00000024349, ENSMUSG00000051439,  ENSMUSG00000074115, ENSMUSG00000016529,  ENSMUSG00000037313, ENSMUSG00000000982,</p>	1	12	<p>ENSMUSG00000024990, ENSMUSG00000034584,  ENSMUSG00000031495, ENSMUSG00000059201,  ENSMUSG00000032083, ENSMUSG00000062778,  ENSMUSG00000059327, ENSMUSG00000026874,  ENSMUSG00000022878, ENSMUSG00000032076,  ENSMUSG00000010047, ENSMUSG00000024526</p>



				<p>ENSMUSG00000032691, ENSMUSG00000019942,  ENSMUSG00000029075, ENSMUSG00000030793,  ENSMUSG00000028874, ENSMUSG00000029915,  ENSMUSG00000024401, ENSMUSG00000040296,  ENSMUSG00000020053, ENSMUSG00000044583,  ENSMUSG00000025746, ENSMUSG00000027398,  ENSMUSG00000044811, ENSMUSG00000079227,  ENSMUSG00000078817</p>			
GO:0043436	oxoacid metabolic process	1	13	<p>ENSMUSG00000030268, ENSMUSG00000038963,  ENSMUSG00000003484, ENSMUSG00000037440,  ENSMUSG00000017146, ENSMUSG00000039519,  ENSMUSG00000050370, ENSMUSG00000021266,  ENSMUSG00000018907, ENSMUSG00000027199,  ENSMUSG00000022126, ENSMUSG00000031551,  ENSMUSG00000020010</p>	0.000136703	55	<p>ENSMUSG00000037686, ENSMUSG00000032263,  ENSMUSG00000033327, ENSMUSG00000032262,  ENSMUSG00000025889, ENSMUSG00000062515,  ENSMUSG00000020182, ENSMUSG00000046402,  ENSMUSG0000002588, ENSMUSG00000002010,  ENSMUSG0000004038, ENSMUSG00000032310,  ENSMUSG00000032418, ENSMUSG00000027513,  ENSMUSG00000032807, ENSMUSG00000032279,  ENSMUSG00000067653, ENSMUSG00000019278,  ENSMUSG00000074183, ENSMUSG00000037071,  ENSMUSG00000029361, ENSMUSG00000032348,  ENSMUSG00000025202, ENSMUSG00000025153,  ENSMUSG00000057880, ENSMUSG00000073424,  ENSMUSG00000002769, ENSMUSG00000022878,  ENSMUSG00000078597, ENSMUSG00000030399,  ENSMUSG00000032349, ENSMUSG00000059201,  ENSMUSG00000066072, ENSMUSG00000021622,  ENSMUSG0000004885, ENSMUSG00000024039,</p>

							ENSMUSG00000030972, ENSMUSG00000058135, ENSMUSG0000000168, ENSMUSG00000031299, ENSMUSG00000025991, ENSMUSG00000032315, ENSMUSG00000027820, ENSMUSG00000090150, ENSMUSG00000022040, ENSMUSG00000075217, ENSMUSG00000028167, ENSMUSG00000031425, ENSMUSG00000024892, ENSMUSG00000029695, ENSMUSG00000041220, ENSMUSG00000035202, ENSMUSG00000050195, ENSMUSG00000020532, ENSMUSG00000027380
GO:0002687	positive regulation of leukocyte migration	1.23E-09	19	ENSMUSG00000027995, ENSMUSG00000035042, ENSMUSG00000071005, ENSMUSG00000040552, ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000020310, ENSMUSG00000023913, ENSMUSG00000023078, ENSMUSG00000026582, ENSMUSG00000018930, ENSMUSG00000024397, ENSMUSG00000026580, ENSMUSG00000041347, ENSMUSG00000034855, ENSMUSG00000025473	1	2	ENSMUSG00000031380, ENSMUSG00000019326
GO:0052257	pathogen-associated molecular pattern dependent induction by organism of innate immune response of other organism involved in symbiotic interaction	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	

GO:0001819	positive regulation of cytokine production	3.38E-11	32	ENSMUSG00000027995, ENSMUSG00000029377, ENSMUSG00000049103, ENSMUSG00000051439, ENSMUSG00000032691, ENSMUSG00000018930, ENSMUSG00000040296, ENSMUSG00000027398, ENSMUSG00000079227, ENSMUSG00000031551, ENSMUSG00000025473, ENSMUSG00000055170, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000071552, ENSMUSG00000026573, ENSMUSG00000040552, ENSMUSG00000004296, ENSMUSG00000000982, ENSMUSG00000053175, ENSMUSG00000000791, ENSMUSG00000025498, ENSMUSG00000050241, ENSMUSG00000041515, ENSMUSG00000030793, ENSMUSG00000024401, ENSMUSG00000025746, ENSMUSG00000044583, ENSMUSG00000026177	1	4	ENSMUSG00000031380, ENSMUSG00000026874, ENSMUSG00000022878, ENSMUSG00000062778
GO:0002715	regulation of natural killer cell mediated immunity	0.00042102 9	9	ENSMUSG00000005696, ENSMUSG00000050241, ENSMUSG00000030124, ENSMUSG00000079298, ENSMUSG00000030149, ENSMUSG00000024339, ENSMUSG00000073406, ENSMUSG00000037321, ENSMUSG00000004296	1	0	
GO:0048519	negative regulation of biological process	3.04E-06	162	ENSMUSG00000017716, ENSMUSG00000033538, ENSMUSG00000036931, ENSMUSG00000027995, ENSMUSG00000066861, ENSMUSG00000049103, ENSMUSG00000020185, ENSMUSG00000075404, ENSMUSG00000019942, ENSMUSG00000021190,	1	113	ENSMUSG00000020123, ENSMUSG00000032547, ENSMUSG00000025889, ENSMUSG00000062515, ENSMUSG00000046532, ENSMUSG00000066357, ENSMUSG00000026715, ENSMUSG00000090877, ENSMUSG00000039952, ENSMUSG00000044820,

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GO:0051988	regulation of attachment of spindle microtubules to	0.00907611	5	ENSMUSG00000045328, ENSMUSG00000041431, ENSMUSG00000002055, ENSMUSG00000023015,	1	0	

	kinetochore			ENSMUSG00000027699			
GO:0051817	modification of morphology or physiology of other organism involved in symbiotic interaction	0.00514216 7	10	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000018930, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000038357, ENSMUSG00000000982, ENSMUSG00000079227	1	2	ENSMUSG00000029368, ENSMUSG00000010047
GO:0042990	regulation of transcription factor import into nucleus	0.00482277 9	11	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000071005, ENSMUSG00000024401, ENSMUSG00000024349, ENSMUSG00000040296, ENSMUSG00000044583, ENSMUSG00000027398, ENSMUSG00000037313, ENSMUSG00000078817, ENSMUSG00000032691	1	0	
GO:0052556	positive regulation by symbiont of host immune response	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	
GO:0044146	negative regulation of growth of symbiont involved in interaction with host	0.00049450 7	8	ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000041515, ENSMUSG00000055994, ENSMUSG00000024401, ENSMUSG00000038357, ENSMUSG00000016529, ENSMUSG0000004296	1	0	
GO:0019724	B cell mediated immunity	4.11E-06	16	ENSMUSG00000036905, ENSMUSG00000036887, ENSMUSG00000055994, ENSMUSG00000092005, ENSMUSG00000039748, ENSMUSG00000058715, ENSMUSG00000026573, ENSMUSG00000040627, ENSMUSG00000024371, ENSMUSG00000076612, ENSMUSG00000055172, ENSMUSG00000053175, ENSMUSG00000015947, ENSMUSG00000026656,	1	0	

				ENSMUSG00000025498, ENSMUSG00000058818			
GO:0050867	positive regulation of cell activation	0.00110783 8	23	ENSMUSG00000055170, ENSMUSG00000001444, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000022901, ENSMUSG00000029075, ENSMUSG00000037440, ENSMUSG00000075122, ENSMUSG00000028874, ENSMUSG00000016498, ENSMUSG00000024397, ENSMUSG00000026580, ENSMUSG00000020053, ENSMUSG00000025746, ENSMUSG00000027398, ENSMUSG00000026770, ENSMUSG00000025473	1	3	ENSMUSG00000059201, ENSMUSG00000026532, ENSMUSG00000017697
GO:2000403	positive regulation of lymphocyte migration	1.03E-05	8	ENSMUSG00000023078, ENSMUSG00000018930, ENSMUSG00000035042, ENSMUSG00000024397, ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000049103, ENSMUSG00000000982	1	0	
GO:0061061	muscle structure development	1	5	ENSMUSG00000022587, ENSMUSG00000020053, ENSMUSG00000058773, ENSMUSG00000034394, ENSMUSG00000006642	4.04E-05	36	ENSMUSG00000009471, ENSMUSG00000021506, ENSMUSG00000032366, ENSMUSG00000035606, ENSMUSG00000052911, ENSMUSG00000031274, ENSMUSG00000046714, ENSMUSG00000030672, ENSMUSG00000032010, ENSMUSG00000021909, ENSMUSG00000031972, ENSMUSG00000022996, ENSMUSG00000032085, ENSMUSG00000032060, ENSMUSG00000026459, ENSMUSG00000036867, ENSMUSG00000049641, ENSMUSG00000007877,



							ENSMUSG00000040289, ENSMUSG00000038119, ENSMUSG00000040752, ENSMUSG00000042812, ENSMUSG00000035458, ENSMUSG00000027470, ENSMUSG00000027077, ENSMUSG00000032340, ENSMUSG00000007815, ENSMUSG00000091898, ENSMUSG00000053093, ENSMUSG00000045103, ENSMUSG00000059741, ENSMUSG00000059481, ENSMUSG00000042903, ENSMUSG00000006235, ENSMUSG00000026418, ENSMUSG00000031980
GO:0051702	interaction with symbiont	0.00183310 7	10	ENSMUSG00000028269, ENSMUSG00000018930, ENSMUSG00000079362, ENSMUSG00000035042, ENSMUSG00000028268, ENSMUSG00000040253, ENSMUSG00000028270, ENSMUSG00000029298, ENSMUSG00000038357, ENSMUSG00000000982	1	0	
GO:0002449	lymphocyte mediated immunity	3.06E-07	19	ENSMUSG00000036905, ENSMUSG00000036887, ENSMUSG00000055994, ENSMUSG00000092005, ENSMUSG00000039748, ENSMUSG00000058715, ENSMUSG00000026573, ENSMUSG00000040627, ENSMUSG00000024371, ENSMUSG00000015437, ENSMUSG00000076612, ENSMUSG00000053977, ENSMUSG00000055172, ENSMUSG00000053175, ENSMUSG00000015947, ENSMUSG00000026656, ENSMUSG00000025498, ENSMUSG00000058818, ENSMUSG00000026177	1	0	
GO:0052306	modulation by organism of innate immune response in	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498,	1	0	

	other organism involved in symbiotic interaction			ENSMUSG00000055994			
GO:0050778	positive regulation of immune response	2.13E-16	43	ENSMUSG00000060802, ENSMUSG00000036905, ENSMUSG00000074148, ENSMUSG00000027995, ENSMUSG00000036887, ENSMUSG00000029377, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000073411, ENSMUSG00000030413, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000051498, ENSMUSG00000030895, ENSMUSG00000037321, ENSMUSG00000031551, ENSMUSG00000025473, ENSMUSG00000067212, ENSMUSG00000005696, ENSMUSG00000045322, ENSMUSG00000027843, ENSMUSG00000092005, ENSMUSG00000040751, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000024349, ENSMUSG00000030149, ENSMUSG00000040552, ENSMUSG00000026573, ENSMUSG00000024371, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000055172, ENSMUSG00000015947, ENSMUSG00000022901, ENSMUSG00000050241, ENSMUSG00000030124, ENSMUSG00000024401, ENSMUSG00000090231, ENSMUSG00000024339, ENSMUSG00000044583, ENSMUSG00000049109, ENSMUSG00000026177	1	7	ENSMUSG00000090877, ENSMUSG00000046834, ENSMUSG00000061780, ENSMUSG00000043496, ENSMUSG00000026874, ENSMUSG00000032076, ENSMUSG00000017697
GO:0048878	chemical homeostasis	1	36	ENSMUSG00000026822, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000031762,	0.008216819	54	ENSMUSG00000020123, ENSMUSG00000030302, ENSMUSG00000030730, ENSMUSG00000031757,

				<p>ENSMUSG00000071005, ENSMUSG00000049103,  ENSMUSG00000074115, ENSMUSG00000035385,  ENSMUSG00000050232, ENSMUSG00000000817,  ENSMUSG00000025804, ENSMUSG00000020053,  ENSMUSG00000027398, ENSMUSG00000020651,  ENSMUSG00000000182, ENSMUSG00000079227,  ENSMUSG00000037321, ENSMUSG00000034459,  ENSMUSG00000031765, ENSMUSG00000035042,  ENSMUSG0000002992, ENSMUSG00000030525,  ENSMUSG00000026573, ENSMUSG00000040552,  ENSMUSG00000090125, ENSMUSG00000000982,  ENSMUSG00000045471, ENSMUSG00000023078,  ENSMUSG00000022094, ENSMUSG00000078236,  ENSMUSG00000036986, ENSMUSG00000012428,  ENSMUSG00000024339, ENSMUSG00000037868,  ENSMUSG00000029380, ENSMUSG00000026177</p>			<p>ENSMUSG00000025889, ENSMUSG00000062515,  ENSMUSG00000070570, ENSMUSG00000025270,  ENSMUSG00000032511, ENSMUSG00000057182,  ENSMUSG00000020524, ENSMUSG00000039952,  ENSMUSG00000090639, ENSMUSG00000032554,  ENSMUSG00000021319, ENSMUSG00000030865,  ENSMUSG0000006269, ENSMUSG00000031209,  ENSMUSG00000026874, ENSMUSG00000018566,  ENSMUSG00000033208, ENSMUSG00000031996,  ENSMUSG00000027513, ENSMUSG00000031760,  ENSMUSG00000074336, ENSMUSG00000032839,  ENSMUSG00000029193, ENSMUSG00000024027,  ENSMUSG00000022878, ENSMUSG00000035458,  ENSMUSG00000032570, ENSMUSG00000005373,  ENSMUSG00000025991, ENSMUSG00000028427,  ENSMUSG0000000889, ENSMUSG00000038239,  ENSMUSG00000027887, ENSMUSG00000050164,  ENSMUSG00000023013, ENSMUSG00000024990,  ENSMUSG00000032081, ENSMUSG00000029205,  ENSMUSG00000032083, ENSMUSG00000030747,  ENSMUSG00000058914, ENSMUSG00000049281,  ENSMUSG00000028167, ENSMUSG00000031425,  ENSMUSG00000031997, ENSMUSG00000006235,  ENSMUSG00000056978, ENSMUSG00000037624,  ENSMUSG00000031980, ENSMUSG00000020532</p>
GO:0006950	response to stress	2.82E-28	169	ENSMUSG00000034206, ENSMUSG00000036931,	1	75	ENSMUSG00000009471, ENSMUSG00000020123,

			ENSMUSG00000027995, ENSMUSG00000007080, ENSMUSG00000027699, ENSMUSG00000066861, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000017830, ENSMUSG00000053977, ENSMUSG00000075404, ENSMUSG00000019942, ENSMUSG00000030268, ENSMUSG00000022504, ENSMUSG00000040296, ENSMUSG00000020053, ENSMUSG00000040264, ENSMUSG00000030144, ENSMUSG00000037321, ENSMUSG00000035365, ENSMUSG00000031551, ENSMUSG00000042489, ENSMUSG00000025473, ENSMUSG00000069874, ENSMUSG00000045322, ENSMUSG00000026068, ENSMUSG00000025492, ENSMUSG00000055994, ENSMUSG0000001228, ENSMUSG00000030149, ENSMUSG00000009292, ENSMUSG00000026896, ENSMUSG00000037313, ENSMUSG00000000982, ENSMUSG00000037474, ENSMUSG00000053175, ENSMUSG00000026656, ENSMUSG00000023913, ENSMUSG00000029075, ENSMUSG00000026582, ENSMUSG00000028268, ENSMUSG00000039396, ENSMUSG00000024079, ENSMUSG00000074151, ENSMUSG00000040613, ENSMUSG00000036905, ENSMUSG00000029664, ENSMUSG00000035352, ENSMUSG00000026822, ENSMUSG00000029379, ENSMUSG00000026429, ENSMUSG00000029811, ENSMUSG00000037202, ENSMUSG00000051439,			ENSMUSG00000031495, ENSMUSG00000025889, ENSMUSG00000062270, ENSMUSG00000034783, ENSMUSG00000007122, ENSMUSG00000059230, ENSMUSG00000026715, ENSMUSG00000090877, ENSMUSG00000037188, ENSMUSG00000090639, ENSMUSG00000039278, ENSMUSG00000026874, ENSMUSG00000033350, ENSMUSG0000007033, ENSMUSG00000031760, ENSMUSG00000019102, ENSMUSG00000043496, ENSMUSG00000010051, ENSMUSG00000037071, ENSMUSG00000017697, ENSMUSG00000029193, ENSMUSG00000061958, ENSMUSG00000090372, ENSMUSG00000022878, ENSMUSG00000042812, ENSMUSG00000022868, ENSMUSG00000026984, ENSMUSG00000035486, ENSMUSG00000000049, ENSMUSG00000022040, ENSMUSG00000023013, ENSMUSG00000031780, ENSMUSG00000059481, ENSMUSG00000042903, ENSMUSG00000031980, ENSMUSG00000040412, ENSMUSG00000030730, ENSMUSG00000029368, ENSMUSG00000033831, ENSMUSG00000025270, ENSMUSG00000061780, ENSMUSG00000033196, ENSMUSG00000052911, ENSMUSG00000018893, ENSMUSG00000029236, ENSMUSG00000033577, ENSMUSG00000032554, ENSMUSG00000021055, ENSMUSG00000022996, ENSMUSG00000031489, ENSMUSG00000031431, ENSMUSG00000032216,
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			ENSMUSG00000032691, ENSMUSG00000030413, ENSMUSG00000027398, ENSMUSG00000027639, ENSMUSG00000034459, ENSMUSG00000028362, ENSMUSG00000055170, ENSMUSG00000079363, ENSMUSG00000035042, ENSMUSG00000034329, ENSMUSG00000039748, ENSMUSG00000058715, ENSMUSG00000017832, ENSMUSG00000004296, ENSMUSG00000076612, ENSMUSG00000000791, ENSMUSG00000050896, ENSMUSG00000015947, ENSMUSG00000021624, ENSMUSG00000040026, ENSMUSG00000023078, ENSMUSG000000041515, ENSMUSG00000037440, ENSMUSG00000020415, ENSMUSG00000078920, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000090231, ENSMUSG00000054588, ENSMUSG00000026580, ENSMUSG00000025746, ENSMUSG00000004328, ENSMUSG00000033777, ENSMUSG000000060802, ENSMUSG00000058755, ENSMUSG00000009185, ENSMUSG00000079563, ENSMUSG00000016529, ENSMUSG00000037731, ENSMUSG00000030148, ENSMUSG00000018930, ENSMUSG00000070034, ENSMUSG00000049502, ENSMUSG00000040253, ENSMUSG00000023341, ENSMUSG00000046591, ENSMUSG00000026222, ENSMUSG00000034652, ENSMUSG00000025804, ENSMUSG00000051498, ENSMUSG00000046718, ENSMUSG00000022534,		ENSMUSG00000091971, ENSMUSG00000020623, ENSMUSG00000032060, ENSMUSG00000024386, ENSMUSG00000046834, ENSMUSG00000060180, ENSMUSG00000029361, ENSMUSG00000073465, ENSMUSG00000057880, ENSMUSG00000019326, ENSMUSG00000024039, ENSMUSG00000032911, ENSMUSG00000036216, ENSMUSG00000007815, ENSMUSG00000035459, ENSMUSG00000000889, ENSMUSG00000027559, ENSMUSG00000051456, ENSMUSG00000062778, ENSMUSG00000056978, ENSMUSG00000010047
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GO:0032496	response to lipopolysaccharide	6.32E-10	27	ENSMUSG00000024079, ENSMUSG00000055170, ENSMUSG00000026104, ENSMUSG00000079362, ENSMUSG00000056529, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000030149, ENSMUSG00000028270, ENSMUSG00000051439, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000004296, ENSMUSG00000020638, ENSMUSG00000041515, ENSMUSG00000029371, ENSMUSG00000024401, ENSMUSG00000054588, ENSMUSG00000025804, ENSMUSG00000027398, ENSMUSG00000059089, ENSMUSG00000041347, ENSMUSG00000079227, ENSMUSG00000022126, ENSMUSG00000031551, ENSMUSG00000053219, ENSMUSG00000026177	1	4	ENSMUSG00000020889, ENSMUSG00000025991, ENSMUSG00000025889, ENSMUSG00000028036
GO:0032101	regulation of response to external stimulus	0.00014283 8	34	ENSMUSG00000035673, ENSMUSG00000071005, ENSMUSG00000049103, ENSMUSG00000016529, ENSMUSG00000035385, ENSMUSG00000018930, ENSMUSG00000025804, ENSMUSG00000027398, ENSMUSG00000079227, ENSMUSG00000034855, ENSMUSG00000031551, ENSMUSG00000026770,	1	25	ENSMUSG00000031380, ENSMUSG00000009471, ENSMUSG00000042812, ENSMUSG00000025810, ENSMUSG00000032547, ENSMUSG00000059201, ENSMUSG00000022868, ENSMUSG00000019326, ENSMUSG00000062515, ENSMUSG00000026715, ENSMUSG00000031841, ENSMUSG00000024028,

				<p>ENSMUSG00000025473, ENSMUSG00000045322,  ENSMUSG00000022548, ENSMUSG00000055994,  ENSMUSG00000035042, ENSMUSG00000058715,  ENSMUSG00000030525, ENSMUSG00000026573,  ENSMUSG00000040552, ENSMUSG00000035373,  ENSMUSG00000021322, ENSMUSG0000004296,  ENSMUSG0000000982, ENSMUSG00000015947,  ENSMUSG00000026656, ENSMUSG00000023913,  ENSMUSG00000023078, ENSMUSG00000024401,  ENSMUSG00000024397, ENSMUSG00000026580,  ENSMUSG00000025746, ENSMUSG00000030111</p>			<p>ENSMUSG00000026874, ENSMUSG0000000049,  ENSMUSG00000031760, ENSMUSG00000024653,  ENSMUSG00000001300, ENSMUSG00000017697,  ENSMUSG00000059481, ENSMUSG00000024386,  ENSMUSG00000031980, ENSMUSG00000022878,  ENSMUSG00000073424, ENSMUSG00000010047,  ENSMUSG00000040412</p>
GO:0002376	immune system process	6.91E-68	177	<p>ENSMUSG00000027995, ENSMUSG00000048534,  ENSMUSG00000036887, ENSMUSG00000066861,  ENSMUSG00000049103, ENSMUSG00000061232,  ENSMUSG00000017830, ENSMUSG00000053977,  ENSMUSG00000075404, ENSMUSG00000050232,  ENSMUSG00000022831, ENSMUSG00000000817,  ENSMUSG00000030786, ENSMUSG00000022504,  ENSMUSG00000040296, ENSMUSG00000040264,  ENSMUSG00000030144, ENSMUSG00000037321,  ENSMUSG00000025473, ENSMUSG00000030142,  ENSMUSG00000069874, ENSMUSG00000045322,  ENSMUSG00000026068, ENSMUSG00000030954,  ENSMUSG00000025492, ENSMUSG00000001444,  ENSMUSG00000055994, ENSMUSG00000030149,  ENSMUSG00000026896, ENSMUSG00000037313,</p>	1	28	<p>ENSMUSG00000055653, ENSMUSG00000059201,  ENSMUSG00000025889, ENSMUSG00000019326,  ENSMUSG00000061780, ENSMUSG00000025270,  ENSMUSG00000034783, ENSMUSG00000018893,  ENSMUSG00000090639, ENSMUSG00000032554,  ENSMUSG0000000889, ENSMUSG00000059327,  ENSMUSG00000031209, ENSMUSG00000061311,  ENSMUSG00000052305, ENSMUSG00000026874,  ENSMUSG00000039004, ENSMUSG00000073940,  ENSMUSG00000022996, ENSMUSG00000043496,  ENSMUSG00000017697, ENSMUSG00000059481,  ENSMUSG00000036867, ENSMUSG00000046834,  ENSMUSG00000023235, ENSMUSG00000055609,  ENSMUSG00000010047, ENSMUSG00000026532</p>



			ENSMUSG0000000982, ENSMUSG00000029304, ENSMUSG00000038067, ENSMUSG00000053175, ENSMUSG00000026656, ENSMUSG00000029075, ENSMUSG00000001131, ENSMUSG00000026582, ENSMUSG00000028268, ENSMUSG00000038418, ENSMUSG00000058818, ENSMUSG00000024338, ENSMUSG00000074151, ENSMUSG00000040613, ENSMUSG00000036905, ENSMUSG00000040528, ENSMUSG00000035352, ENSMUSG00000026822, ENSMUSG00000029379, ENSMUSG00000071005, ENSMUSG00000047798, ENSMUSG00000037202, ENSMUSG00000051439, ENSMUSG00000032691, ENSMUSG00000030413, ENSMUSG00000062007, ENSMUSG00000027398, ENSMUSG00000059089, ENSMUSG00000027639, ENSMUSG00000034459, ENSMUSG00000028362, ENSMUSG00000055170, ENSMUSG00000068227, ENSMUSG00000079363, ENSMUSG00000027843, ENSMUSG00000067341, ENSMUSG00000035042, ENSMUSG00000039748, ENSMUSG00000035186, ENSMUSG00000058715, ENSMUSG00000004296, ENSMUSG00000076612, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000021624, ENSMUSG00000023078, ENSMUSG00000041515, ENSMUSG00000037440, ENSMUSG00000034394, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000073409,			
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			ENSMUSG00000090231, ENSMUSG00000054588, ENSMUSG00000026580, ENSMUSG00000025746, ENSMUSG00000049109, ENSMUSG00000033777, ENSMUSG00000060802, ENSMUSG00000058755, ENSMUSG00000009185, ENSMUSG00000018899, ENSMUSG00000016529, ENSMUSG00000015437, ENSMUSG00000060550, ENSMUSG00000028072, ENSMUSG00000030148, ENSMUSG00000018930, ENSMUSG00000078452, ENSMUSG00000070034, ENSMUSG00000040253, ENSMUSG00000023341, ENSMUSG00000026222, ENSMUSG00000034652, ENSMUSG00000025804, ENSMUSG00000051498, ENSMUSG00000046718, ENSMUSG00000054072, ENSMUSG00000034855, ENSMUSG00000091875, ENSMUSG00000026770, ENSMUSG00000044701, ENSMUSG0000005696, ENSMUSG00000039236, ENSMUSG00000018920, ENSMUSG00000079362, ENSMUSG00000070427, ENSMUSG00000040751, ENSMUSG00000030525, ENSMUSG00000040552, ENSMUSG00000040627, ENSMUSG00000028270, ENSMUSG00000035373, ENSMUSG00000024371, ENSMUSG00000055172, ENSMUSG00000025498, ENSMUSG00000050241, ENSMUSG00000003283, ENSMUSG00000048806, ENSMUSG00000000386, ENSMUSG00000044583, ENSMUSG00000029380, ENSMUSG00000027832, ENSMUSG00000074148,			
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				ENSMUSG00000058427, ENSMUSG00000035673, ENSMUSG00000029417, ENSMUSG00000071068, ENSMUSG00000029298, ENSMUSG00000074115, ENSMUSG00000035385, ENSMUSG00000020641, ENSMUSG00000073411, ENSMUSG00000026166, ENSMUSG00000075122, ENSMUSG00000028874, ENSMUSG00000029915, ENSMUSG00000073489, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000027514, ENSMUSG00000036469, ENSMUSG00000067212, ENSMUSG00000041324, ENSMUSG00000021423, ENSMUSG00000028269, ENSMUSG00000026104, ENSMUSG00000092005, ENSMUSG0000002699, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000035929, ENSMUSG00000020310, ENSMUSG00000022901, ENSMUSG00000025001, ENSMUSG00000044827, ENSMUSG00000029371, ENSMUSG00000032661, ENSMUSG00000046879, ENSMUSG00000034116, ENSMUSG00000021765, ENSMUSG00000034438, ENSMUSG00000024339, ENSMUSG00000024337, ENSMUSG00000039146, ENSMUSG00000026177, ENSMUSG00000032218			
GO:0010033	response to organic substance	2.51E-14	114	ENSMUSG00000060802, ENSMUSG00000027995, ENSMUSG00000066363, ENSMUSG00000041481, ENSMUSG00000066861, ENSMUSG00000049103, ENSMUSG00000018899, ENSMUSG00000016529,	1	58	ENSMUSG00000031134, ENSMUSG00000009471, ENSMUSG00000020123, ENSMUSG00000030730, ENSMUSG00000025810, ENSMUSG00000027796, ENSMUSG00000012705, ENSMUSG00000025889,

			ENSMUSG00000078853, ENSMUSG00000026073, ENSMUSG00000075404, ENSMUSG00000019942, ENSMUSG00000022831, ENSMUSG00000028072, ENSMUSG00000054203, ENSMUSG00000058207, ENSMUSG00000040253, ENSMUSG00000022504, ENSMUSG00000026222, ENSMUSG00000025804, ENSMUSG00000040264, ENSMUSG00000051498, ENSMUSG00000045932, ENSMUSG00000021091, ENSMUSG0000000182, ENSMUSG00000054072, ENSMUSG00000031551, ENSMUSG00000026770, ENSMUSG00000091875, ENSMUSG00000038037, ENSMUSG00000018920, ENSMUSG00000069874, ENSMUSG00000045322, ENSMUSG00000026068, ENSMUSG00000025492, ENSMUSG00000079362, ENSMUSG00000055994, ENSMUSG00000030149, ENSMUSG00000030525, ENSMUSG00000028270, ENSMUSG00000000982, ENSMUSG00000029304, ENSMUSG00000026656, ENSMUSG00000050635, ENSMUSG00000030793, ENSMUSG00000026582, ENSMUSG00000028268, ENSMUSG00000028068, ENSMUSG00000022622, ENSMUSG00000038418, ENSMUSG00000048806, ENSMUSG00000058818, ENSMUSG00000079014, ENSMUSG00000022126, ENSMUSG00000053219, ENSMUSG00000024079, ENSMUSG00000040613, ENSMUSG00000078922, ENSMUSG0000003665, ENSMUSG00000058427,			ENSMUSG00000055980, ENSMUSG00000046532, ENSMUSG00000018893, ENSMUSG00000046714, ENSMUSG00000090877, ENSMUSG00000031841, ENSMUSG00000061393, ENSMUSG00000067951, ENSMUSG00000024028, ENSMUSG00000032418, ENSMUSG00000018566, ENSMUSG00000021055, ENSMUSG00000020889, ENSMUSG00000027513, ENSMUSG0000005705, ENSMUSG00000022996, ENSMUSG00000031760, ENSMUSG00000029195, ENSMUSG00000019102, ENSMUSG00000032449, ENSMUSG00000010051, ENSMUSG00000017697, ENSMUSG00000038776, ENSMUSG00000026459, ENSMUSG00000030244, ENSMUSG00000029361, ENSMUSG00000073465, ENSMUSG00000057880, ENSMUSG00000022878, ENSMUSG00000024027, ENSMUSG00000042812, ENSMUSG00000041658, ENSMUSG00000059201, ENSMUSG00000005373, ENSMUSG00000035486, ENSMUSG00000025991, ENSMUSG00000001494, ENSMUSG00000000889, ENSMUSG00000027820, ENSMUSG00000031144, ENSMUSG00000024990, ENSMUSG00000032081, ENSMUSG00000024653, ENSMUSG00000030747, ENSMUSG00000028036, ENSMUSG00000042903, ENSMUSG0000006235, ENSMUSG00000020532, ENSMUSG00000028307, ENSMUSG00000010047
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				ENSMUSG00000071005, ENSMUSG00000029377, ENSMUSG00000029811, ENSMUSG00000029298, ENSMUSG00000043263, ENSMUSG00000051439, ENSMUSG00000029378, ENSMUSG00000027199, ENSMUSG00000035385, ENSMUSG00000020638, ENSMUSG00000017146, ENSMUSG00000073489, ENSMUSG00000037860, ENSMUSG00000039997, ENSMUSG00000026535, ENSMUSG00000027398, ENSMUSG00000059089, ENSMUSG00000079227, ENSMUSG00000034459, ENSMUSG00000041324, ENSMUSG00000055170, ENSMUSG00000068227, ENSMUSG00000028269, ENSMUSG00000079363, ENSMUSG00000026104, ENSMUSG00000035042, ENSMUSG00000056529, ENSMUSG00000071714, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000004296, ENSMUSG00000026981, ENSMUSG00000000791, ENSMUSG00000049734, ENSMUSG00000029371, ENSMUSG00000041515, ENSMUSG00000044827, ENSMUSG00000023078, ENSMUSG00000073555, ENSMUSG00000074896, ENSMUSG00000079012, ENSMUSG00000036986, ENSMUSG00000024529, ENSMUSG00000024401, ENSMUSG00000034438, ENSMUSG00000054588, ENSMUSG00000026580, ENSMUSG00000024339, ENSMUSG00000037868, ENSMUSG00000025746, ENSMUSG00000041347, ENSMUSG00000071713,			
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				ENSMUSG0000066361, ENSMUSG00000026177			
GO:0002263	cell activation involved in immune response	9.62E-06	17	ENSMUSG00000055170, ENSMUSG00000040528, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000040751, ENSMUSG00000035673, ENSMUSG00000039748, ENSMUSG00000058715, ENSMUSG00000040627, ENSMUSG00000000982, ENSMUSG0000004296, ENSMUSG00000053175, ENSMUSG00000034652, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000026177	1	0	
GO:0052552	modulation by organism of immune response of other organism involved in symbiotic interaction	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	
GO:0002696	positive regulation of leukocyte activation	0.00176433 9	22	ENSMUSG00000055170, ENSMUSG00000001444, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG0000004296, ENSMUSG0000000791, ENSMUSG00000022901, ENSMUSG00000029075, ENSMUSG00000037440, ENSMUSG00000075122, ENSMUSG00000028874, ENSMUSG00000016498, ENSMUSG00000024397, ENSMUSG00000025746, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000026770, ENSMUSG00000025473	1	2	ENSMUSG00000026532, ENSMUSG00000017697
GO:0052572	response to host immune	0.00907611	5	ENSMUSG00000027995, ENSMUSG00000045322,	1	0	

	response			ENSMUSG00000044583, ENSMUSG000000051498, ENSMUSG000000055994			
GO:0001816	cytokine production	0.00522324 2	14	ENSMUSG00000025498, ENSMUSG000000029371, ENSMUSG00000030793, ENSMUSG000000056529, ENSMUSG000000055994, ENSMUSG00000002699, ENSMUSG00000037860, ENSMUSG000000024349, ENSMUSG00000070691, ENSMUSG000000026573, ENSMUSG00000027398, ENSMUSG000000031551, ENSMUSG00000026177, ENSMUSG000000032691	1	3	ENSMUSG00000062515, ENSMUSG00000000889, ENSMUSG000000031980
GO:0071219	cellular response to molecule of bacterial origin	1.67E-12	22	ENSMUSG000000055170, ENSMUSG000000027995, ENSMUSG00000026104, ENSMUSG000000079362, ENSMUSG000000035042, ENSMUSG000000055994, ENSMUSG000000030149, ENSMUSG000000028270, ENSMUSG000000051439, ENSMUSG000000035385, ENSMUSG00000000982, ENSMUSG00000004296, ENSMUSG00000026656, ENSMUSG000000020638, ENSMUSG000000041515, ENSMUSG000000044827, ENSMUSG00000024401, ENSMUSG000000054588, ENSMUSG00000027398, ENSMUSG000000051498, ENSMUSG000000059089, ENSMUSG000000053219	1	0	
GO:0000280	nuclear division	7.66E-18	47	ENSMUSG00000017716, ENSMUSG00000015880, ENSMUSG00000024791, ENSMUSG000000050107, ENSMUSG00000045273, ENSMUSG000000024989, ENSMUSG000000068744, ENSMUSG00000019942, ENSMUSG000000045328, ENSMUSG000000006398, ENSMUSG000000028873, ENSMUSG00000002055,	1	6	ENSMUSG00000007815, ENSMUSG000000025862, ENSMUSG00000001403, ENSMUSG000000062380, ENSMUSG000000031176, ENSMUSG000000036782

				ENSMUSG00000027379, ENSMUSG00000024056, ENSMUSG00000027469, ENSMUSG00000027331, ENSMUSG00000027715, ENSMUSG00000029414, ENSMUSG00000044201, ENSMUSG00000026683, ENSMUSG00000023505, ENSMUSG00000041431, ENSMUSG00000040084, ENSMUSG00000036223, ENSMUSG00000027306, ENSMUSG00000023015, ENSMUSG00000024795, ENSMUSG00000069910, ENSMUSG00000025001, ENSMUSG00000048922, ENSMUSG00000051378, ENSMUSG00000020897, ENSMUSG00000017499, ENSMUSG00000071350, ENSMUSG00000020415, ENSMUSG00000028678, ENSMUSG00000012443, ENSMUSG00000030867, ENSMUSG00000074476, ENSMUSG00000017861, ENSMUSG00000023940, ENSMUSG00000072082, ENSMUSG00000026779, ENSMUSG00000033952, ENSMUSG00000058290, ENSMUSG00000032218, ENSMUSG00000027496			
GO:0001911	negative regulation of leukocyte mediated cytotoxicity	0.00916696 9	6	ENSMUSG00000024339, ENSMUSG00000050241, ENSMUSG00000073406, ENSMUSG00000037321, ENSMUSG00000079298, ENSMUSG00000079620	1	0	
GO:0006955	immune response	2.01E-67	120	ENSMUSG00000058755, ENSMUSG00000027995, ENSMUSG00000036887, ENSMUSG00000009185, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000016529, ENSMUSG00000017830, ENSMUSG00000015437, ENSMUSG00000053977,	1	9	ENSMUSG00000025889, ENSMUSG00000061780, ENSMUSG00000043496, ENSMUSG00000017697, ENSMUSG00000036867, ENSMUSG00000046834, ENSMUSG00000059327, ENSMUSG00000026874, ENSMUSG00000039004



			ENSMUSG00000060550, ENSMUSG00000075404, ENSMUSG00000030148, ENSMUSG00000018930, ENSMUSG00000000817, ENSMUSG00000078452, ENSMUSG00000070034, ENSMUSG00000040253, ENSMUSG00000022504, ENSMUSG00000023341, ENSMUSG00000040296, ENSMUSG00000026222, ENSMUSG00000025804, ENSMUSG00000034652, ENSMUSG00000040264, ENSMUSG00000030144, ENSMUSG00000046718, ENSMUSG00000051498, ENSMUSG00000054072, ENSMUSG00000034855, ENSMUSG00000026770, ENSMUSG00000030142, ENSMUSG0000005696, ENSMUSG00000044701, ENSMUSG00000039236, ENSMUSG00000018920, ENSMUSG00000069874, ENSMUSG00000045322, ENSMUSG00000030954, ENSMUSG00000026068, ENSMUSG00000025492, ENSMUSG00000079362, ENSMUSG00000070427, ENSMUSG00000055994, ENSMUSG00000040751, ENSMUSG00000040552, ENSMUSG00000028270, ENSMUSG00000040627, ENSMUSG00000035373, ENSMUSG00000024371, ENSMUSG00000026896, ENSMUSG00000000982, ENSMUSG00000038067, ENSMUSG00000055172, ENSMUSG00000053175, ENSMUSG00000025498, ENSMUSG00000026656, ENSMUSG00000003283, ENSMUSG00000028268, ENSMUSG00000048806, ENSMUSG00000058818, ENSMUSG00000000386,			
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			ENSMUSG00000044583, ENSMUSG00000029380, ENSMUSG00000074151, ENSMUSG00000040528, ENSMUSG00000036905, ENSMUSG00000035352, ENSMUSG00000026822, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000035673, ENSMUSG00000029298, ENSMUSG00000051439, ENSMUSG00000037202, ENSMUSG00000035385, ENSMUSG00000073411, ENSMUSG00000026166, ENSMUSG00000030413, ENSMUSG00000028874, ENSMUSG00000029915, ENSMUSG00000026011, ENSMUSG00000027398, ENSMUSG00000027639, ENSMUSG00000027514, ENSMUSG00000034459, ENSMUSG00000028362, ENSMUSG00000036469, ENSMUSG00000067212, ENSMUSG00000021423, ENSMUSG00000055170, ENSMUSG00000028269, ENSMUSG00000079363, ENSMUSG00000026104, ENSMUSG00000092005, ENSMUSG00000035042, ENSMUSG00000039748, ENSMUSG00000058715, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG0000004296, ENSMUSG00000076612, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000021624, ENSMUSG00000023078, ENSMUSG00000041515, ENSMUSG00000044827, ENSMUSG00000037440, ENSMUSG00000034394, ENSMUSG00000046879, ENSMUSG00000034116, ENSMUSG00000024401, ENSMUSG00000090231,			
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				ENSMUSG00000034438, ENSMUSG00000054588, ENSMUSG00000025746, ENSMUSG00000039146, ENSMUSG00000026177, ENSMUSG00000033777			
GO:0003012	muscle system process	1	0		2.28E-09	26	ENSMUSG00000009471, ENSMUSG00000030730, ENSMUSG00000064179, ENSMUSG00000035458, ENSMUSG00000032366, ENSMUSG00000027470, ENSMUSG00000033196, ENSMUSG00000057003, ENSMUSG00000091898, ENSMUSG00000053093, ENSMUSG00000021909, ENSMUSG00000006457, ENSMUSG00000017300, ENSMUSG00000061816, ENSMUSG00000061723, ENSMUSG00000031097, ENSMUSG00000061086, ENSMUSG00000020216, ENSMUSG00000020623, ENSMUSG00000020061, ENSMUSG00000059741, ENSMUSG00000052374, ENSMUSG00000029361, ENSMUSG00000031980, ENSMUSG00000040752, ENSMUSG00000020475
GO:0007067	mitosis	7.66E-18	47	ENSMUSG00000017716, ENSMUSG00000015880, ENSMUSG00000024791, ENSMUSG00000050107, ENSMUSG00000045273, ENSMUSG00000024989, ENSMUSG00000068744, ENSMUSG00000019942, ENSMUSG00000045328, ENSMUSG00000006398, ENSMUSG00000028873, ENSMUSG00000002055, ENSMUSG00000027379, ENSMUSG00000024056, ENSMUSG00000027469, ENSMUSG00000027331, ENSMUSG00000027715, ENSMUSG00000029414, ENSMUSG00000044201, ENSMUSG00000026683,	1	6	ENSMUSG00000007815, ENSMUSG00000025862, ENSMUSG00000001403, ENSMUSG00000062380, ENSMUSG00000031176, ENSMUSG00000036782

				ENSMUSG00000023505, ENSMUSG000000041431, ENSMUSG00000040084, ENSMUSG000000036223, ENSMUSG00000027306, ENSMUSG000000023015, ENSMUSG00000024795, ENSMUSG000000069910, ENSMUSG00000025001, ENSMUSG000000048922, ENSMUSG000000051378, ENSMUSG000000020897, ENSMUSG00000017499, ENSMUSG000000071350, ENSMUSG00000020415, ENSMUSG000000028678, ENSMUSG00000012443, ENSMUSG000000030867, ENSMUSG00000074476, ENSMUSG000000017861, ENSMUSG00000023940, ENSMUSG000000072082, ENSMUSG00000026779, ENSMUSG000000033952, ENSMUSG000000058290, ENSMUSG000000032218, ENSMUSG00000027496			
GO:0071346	cellular response to interferon-gamma	2.54E-13	14	ENSMUSG00000028269, ENSMUSG000000079363, ENSMUSG00000026104, ENSMUSG000000079362, ENSMUSG00000028268, ENSMUSG000000040253, ENSMUSG00000034438, ENSMUSG000000054588, ENSMUSG00000028270, ENSMUSG000000029298, ENSMUSG00000040264, ENSMUSG000000035385, ENSMUSG00000004296, ENSMUSG00000000791	1	0	
GO:0009611	response to wounding	2.70E-16	63	ENSMUSG00000036931, ENSMUSG000000027995, ENSMUSG00000029664, ENSMUSG000000035352, ENSMUSG00000030017, ENSMUSG000000058427, ENSMUSG00000029379, ENSMUSG000000009185, ENSMUSG00000031444, ENSMUSG000000049103,	1	21	ENSMUSG00000009471, ENSMUSG000000042812, ENSMUSG000000022868, ENSMUSG000000033831, ENSMUSG000000019326, ENSMUSG000000033196, ENSMUSG000000032911, ENSMUSG000000052911, ENSMUSG000000026984, ENSMUSG000000026715,

			ENSMUSG00000051439, ENSMUSG00000074115, ENSMUSG00000016529, ENSMUSG00000037731, ENSMUSG00000035385, ENSMUSG00000032691, ENSMUSG00000040017, ENSMUSG00000026166, ENSMUSG00000018930, ENSMUSG00000025804, ENSMUSG00000034652, ENSMUSG00000020053, ENSMUSG00000022534, ENSMUSG00000027398, ENSMUSG00000051498, ENSMUSG00000034855, ENSMUSG00000031551, ENSMUSG00000026770, ENSMUSG00000025473, ENSMUSG00000044701, ENSMUSG00000021423, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000056529, ENSMUSG00000058715, ENSMUSG00000035373, ENSMUSG00000000982, ENSMUSG00000057465, ENSMUSG00000026981, ENSMUSG00000050896, ENSMUSG00000015947, ENSMUSG00000021624, ENSMUSG00000040026, ENSMUSG00000023913, ENSMUSG00000029371, ENSMUSG00000023078, ENSMUSG00000029075, ENSMUSG00000030793, ENSMUSG00000044827, ENSMUSG0000003283, ENSMUSG00000037440, ENSMUSG00000026582, ENSMUSG00000024529, ENSMUSG00000024401, ENSMUSG00000026580, ENSMUSG00000044583, ENSMUSG00000025746, ENSMUSG00000029380, ENSMUSG00000041347, ENSMUSG00000026177, ENSMUSG00000033777,		ENSMUSG00000037188, ENSMUSG00000026874, ENSMUSG00000000049, ENSMUSG00000033350, ENSMUSG00000022040, ENSMUSG00000022996, ENSMUSG00000043496, ENSMUSG00000010051, ENSMUSG00000062778, ENSMUSG00000059481, ENSMUSG00000024386
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				ENSMUSG00000037872			
GO:0019883	antigen processing and presentation of endogenous antigen	0.00907611	5	ENSMUSG00000073411, ENSMUSG00000024339, ENSMUSG00000061232, ENSMUSG00000037321, ENSMUSG00000067212	1	0	
GO:0042306	regulation of protein import into nucleus	0.00371568 2	16	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000022548, ENSMUSG00000071005, ENSMUSG00000027699, ENSMUSG00000024349, ENSMUSG00000037313, ENSMUSG00000032691, ENSMUSG00000019942, ENSMUSG00000024401, ENSMUSG00000040296, ENSMUSG00000025746, ENSMUSG00000044583, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000078817	1	3	ENSMUSG00000059201, ENSMUSG00000059327, ENSMUSG00000010047
GO:0032642	regulation of chemokine production	0.00249462 9	11	ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000029371, ENSMUSG00000035042, ENSMUSG00000022548, ENSMUSG00000024401, ENSMUSG00000044583, ENSMUSG00000025746, ENSMUSG00000027398, ENSMUSG00000037872	1	3	ENSMUSG00000026874, ENSMUSG00000022878, ENSMUSG00000062778
GO:0002819	regulation of adaptive immune response	3.45E-09	23	ENSMUSG00000044701, ENSMUSG00000055170, ENSMUSG00000060802, ENSMUSG00000001444, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000073411, ENSMUSG00000026656, ENSMUSG00000079620, ENSMUSG00000024401,	1	2	ENSMUSG00000090877, ENSMUSG00000017697

				ENSMUSG00000022876, ENSMUSG00000024339, ENSMUSG00000048806, ENSMUSG00000030895, ENSMUSG00000037321, ENSMUSG00000026177, ENSMUSG00000067212			
GO:0070663	regulation of leukocyte proliferation	5.37E-06	24	ENSMUSG00000016496, ENSMUSG00000044701, ENSMUSG00000055170, ENSMUSG00000073412, ENSMUSG00000027843, ENSMUSG00000035042, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000016529, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000022901, ENSMUSG00000026656, ENSMUSG00000029075, ENSMUSG00000075122, ENSMUSG00000016498, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000024397, ENSMUSG00000025746, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000031551, ENSMUSG00000026770	1	4	ENSMUSG00000063632, ENSMUSG00000024653, ENSMUSG00000026532, ENSMUSG00000017697
GO:0050777	negative regulation of immune response	8.75E-10	19	ENSMUSG00000055994, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000016529, ENSMUSG00000073406, ENSMUSG00000004296, ENSMUSG00000026656, ENSMUSG00000050241, ENSMUSG00000079620, ENSMUSG00000079298, ENSMUSG00000026011, ENSMUSG00000022876, ENSMUSG00000024339, ENSMUSG00000048806, ENSMUSG00000025804, ENSMUSG00000042726, ENSMUSG00000030111, ENSMUSG00000037321, ENSMUSG00000026770	1	0	

GO:0007156	homophilic cell adhesion	1	0		0.005362275	13	ENSMUSG00000032452, ENSMUSG00000069441, ENSMUSG00000001946, ENSMUSG00000056632, ENSMUSG00000074505, ENSMUSG00000008153, ENSMUSG00000031881, ENSMUSG00000061928, ENSMUSG00000031841, ENSMUSG00000059898, ENSMUSG00000044322, ENSMUSG00000034774, ENSMUSG00000032076
GO:0002695	negative regulation of leukocyte activation	6.99E-05	18	ENSMUSG00000016496, ENSMUSG00000036931, ENSMUSG00000040528, ENSMUSG00000073412, ENSMUSG00000027843, ENSMUSG00000071552, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000016529, ENSMUSG00000026656, ENSMUSG00000030124, ENSMUSG00000016498, ENSMUSG00000022876, ENSMUSG00000026011, ENSMUSG00000048806, ENSMUSG00000034652, ENSMUSG00000031551, ENSMUSG00000026770	1	4	ENSMUSG00000063632, ENSMUSG00000042812, ENSMUSG00000024653, ENSMUSG00000024028
GO:0051726	regulation of cell cycle	0.00750750 6	44	ENSMUSG00000017716, ENSMUSG00000058755, ENSMUSG00000024791, ENSMUSG00000027699, ENSMUSG00000029377, ENSMUSG00000026605, ENSMUSG00000068744, ENSMUSG00000019942, ENSMUSG00000045328, ENSMUSG00000030268, ENSMUSG00000017146, ENSMUSG00000027379, ENSMUSG00000027469, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000037628, ENSMUSG00000027715, ENSMUSG00000041324, ENSMUSG00000042489, ENSMUSG00000029414,	1	18	ENSMUSG00000027470, ENSMUSG0000005373, ENSMUSG00000035486, ENSMUSG00000066357, ENSMUSG0000007815, ENSMUSG00000044820, ENSMUSG00000032010, ENSMUSG00000032315, ENSMUSG00000042750, ENSMUSG00000022996, ENSMUSG00000010051, ENSMUSG00000031176, ENSMUSG00000036867, ENSMUSG00000042903, ENSMUSG00000025862, ENSMUSG00000001403, ENSMUSG00000023092, ENSMUSG00000046240



				ENSMUSG00000024014, ENSMUSG00000055170, ENSMUSG00000035455, ENSMUSG00000035186, ENSMUSG00000070691, ENSMUSG00000041431, ENSMUSG00000027306, ENSMUSG00000037313, ENSMUSG00000004296, ENSMUSG00000023015, ENSMUSG00000037474, ENSMUSG00000078763, ENSMUSG0000002068, ENSMUSG00000020897, ENSMUSG00000017499, ENSMUSG00000034394, ENSMUSG00000039981, ENSMUSG00000030867, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000024397, ENSMUSG00000072082, ENSMUSG00000026779, ENSMUSG00000032218			
GO:0002708	positive regulation of lymphocyte mediated immunity	2.37E-08	17	ENSMUSG0000005696, ENSMUSG00000060802, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000026573, ENSMUSG00000061232, ENSMUSG00000004296, ENSMUSG00000015947, ENSMUSG00000073411, ENSMUSG00000050241, ENSMUSG00000030124, ENSMUSG00000024401, ENSMUSG00000024339, ENSMUSG00000030895, ENSMUSG00000037321, ENSMUSG00000067212	1	2	ENSMUSG00000090877, ENSMUSG00000032076
GO:0006629	lipid metabolic process	1	20	ENSMUSG00000024112, ENSMUSG00000003484, ENSMUSG00000002847, ENSMUSG00000002992, ENSMUSG00000022548, ENSMUSG00000003555, ENSMUSG00000018907, ENSMUSG00000021322, ENSMUSG00000074115, ENSMUSG00000031891,	0.002968305	62	ENSMUSG00000037686, ENSMUSG00000032203, ENSMUSG00000033327, ENSMUSG00000032262, ENSMUSG00000074254, ENSMUSG00000025889, ENSMUSG00000062515, ENSMUSG00000055980, ENSMUSG00000035686, ENSMUSG00000046402,

				ENSMUSG00000026981, ENSMUSG00000023913, ENSMUSG00000033847, ENSMUSG00000028751, ENSMUSG00000017146, ENSMUSG00000039519, ENSMUSG00000050370, ENSMUSG00000000182, ENSMUSG00000052160, ENSMUSG00000023045			ENSMUSG00000002588, ENSMUSG00000031844, ENSMUSG00000013418, ENSMUSG00000032454, ENSMUSG00000032310, ENSMUSG00000031996, ENSMUSG00000027513, ENSMUSG00000022996, ENSMUSG00000032807, ENSMUSG00000031760, ENSMUSG00000067653, ENSMUSG00000037071, ENSMUSG00000028773, ENSMUSG00000032649, ENSMUSG00000025202, ENSMUSG00000025153, ENSMUSG00000008035, ENSMUSG00000073424, ENSMUSG00000022878, ENSMUSG00000078597, ENSMUSG00000024526, ENSMUSG00000030546, ENSMUSG00000032349, ENSMUSG00000059201, ENSMUSG00000019359, ENSMUSG00000066072, ENSMUSG00000023019, ENSMUSG00000004885, ENSMUSG00000032558, ENSMUSG00000030972, ENSMUSG00000032908, ENSMUSG00000025991, ENSMUSG00000056078, ENSMUSG00000032315, ENSMUSG00000000049, ENSMUSG00000090150, ENSMUSG00000022040, ENSMUSG00000052131, ENSMUSG00000024990, ENSMUSG00000032081, ENSMUSG00000035540, ENSMUSG00000032083, ENSMUSG00000030747, ENSMUSG00000075217, ENSMUSG00000028167, ENSMUSG00000031425, ENSMUSG00000041220, ENSMUSG00000020532, ENSMUSG00000050195, ENSMUSG00000041653, ENSMUSG00000027380, ENSMUSG00000012187
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GO:0001562	response to protozoan	1.26E-14	15	ENSMUSG00000055170, ENSMUSG00000028269, ENSMUSG00000069874, ENSMUSG00000041515, ENSMUSG00000079362, ENSMUSG00000028268, ENSMUSG00000040253, ENSMUSG00000054588, ENSMUSG00000028270, ENSMUSG00000025746, ENSMUSG00000029298, ENSMUSG00000054072, ENSMUSG0000004296, ENSMUSG00000053175, ENSMUSG00000026177	1	0	
GO:0042035	regulation of cytokine biosynthetic process	9.23E-07	19	ENSMUSG00000044701, ENSMUSG00000055170, ENSMUSG00000028602, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000029377, ENSMUSG00000049103, ENSMUSG00000018899, ENSMUSG00000016529, ENSMUSG00000053175, ENSMUSG00000044827, ENSMUSG00000030124, ENSMUSG00000030365, ENSMUSG00000024401, ENSMUSG00000025746, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000027398, ENSMUSG00000078817	1	0	
GO:0034097	response to cytokine stimulus	4.65E-32	67	ENSMUSG00000066363, ENSMUSG00000041481, ENSMUSG00000066861, ENSMUSG00000049103, ENSMUSG00000018899, ENSMUSG00000078853, ENSMUSG00000026073, ENSMUSG00000075404, ENSMUSG00000054203, ENSMUSG00000058207, ENSMUSG00000040253, ENSMUSG00000022504, ENSMUSG00000026222, ENSMUSG00000025804, ENSMUSG00000040264, ENSMUSG00000045932,	1	12	ENSMUSG00000031134, ENSMUSG00000042812, ENSMUSG00000059201, ENSMUSG00000031760, ENSMUSG00000025889, ENSMUSG00000024653, ENSMUSG00000010051, ENSMUSG00000006235, ENSMUSG00000024028, ENSMUSG00000022878, ENSMUSG00000027820, ENSMUSG00000010047

				ENSMUSG00000021091, ENSMUSG00000054072, ENSMUSG00000026770, ENSMUSG00000038037, ENSMUSG00000018920, ENSMUSG00000069874, ENSMUSG00000026068, ENSMUSG00000025492, ENSMUSG00000079362, ENSMUSG00000028270, ENSMUSG00000030793, ENSMUSG00000026582, ENSMUSG00000028268, ENSMUSG00000038418, ENSMUSG00000058818, ENSMUSG00000079014, ENSMUSG00000078922, ENSMUSG00000029377, ENSMUSG00000029298, ENSMUSG00000043263, ENSMUSG00000035385, ENSMUSG00000037860, ENSMUSG00000073489, ENSMUSG00000039997, ENSMUSG00000026535, ENSMUSG00000027398, ENSMUSG00000034459, ENSMUSG00000055170, ENSMUSG00000068227, ENSMUSG00000079363, ENSMUSG00000028269, ENSMUSG00000026104, ENSMUSG00000035042, ENSMUSG00000071714, ENSMUSG00000026573, ENSMUSG0000004296, ENSMUSG00000000791, ENSMUSG00000049734, ENSMUSG00000023078, ENSMUSG00000073555, ENSMUSG00000074896, ENSMUSG00000036986, ENSMUSG00000079012, ENSMUSG00000024401, ENSMUSG00000034438, ENSMUSG00000026580, ENSMUSG00000054588, ENSMUSG00000025746, ENSMUSG00000066361, ENSMUSG00000071713, ENSMUSG00000026177			
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GO:0002237	response to molecule of bacterial origin	3.60E-16	36	ENSMUSG00000024079, ENSMUSG00000060802, ENSMUSG00000027995, ENSMUSG00000058427, ENSMUSG00000051439, ENSMUSG00000016529, ENSMUSG00000035385, ENSMUSG00000020638, ENSMUSG00000025804, ENSMUSG00000051498, ENSMUSG00000027398, ENSMUSG00000059089, ENSMUSG00000079227, ENSMUSG00000031551, ENSMUSG00000055170, ENSMUSG00000045322, ENSMUSG00000026104, ENSMUSG00000079362, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000056529, ENSMUSG00000030149, ENSMUSG00000028270, ENSMUSG00000000982, ENSMUSG00000004296, ENSMUSG00000026656, ENSMUSG00000044827, ENSMUSG00000041515, ENSMUSG00000029371, ENSMUSG00000024401, ENSMUSG00000024339, ENSMUSG00000054588, ENSMUSG00000041347, ENSMUSG00000022126, ENSMUSG00000026177, ENSMUSG00000053219	1	4	ENSMUSG00000020889, ENSMUSG00000025991, ENSMUSG00000025889, ENSMUSG00000028036
GO:0002700	regulation of production of molecular mediator of immune response	0.00013945 4	14	ENSMUSG00000026656, ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000029075, ENSMUSG0000001444, ENSMUSG00000055994, ENSMUSG00000024353, ENSMUSG00000024401, ENSMUSG00000058715, ENSMUSG00000026573, ENSMUSG00000048806, ENSMUSG00000025746, ENSMUSG00000030895, ENSMUSG00000016529	1	3	ENSMUSG00000024990, ENSMUSG00000043496, ENSMUSG00000032083
GO:0002764	immune response-regulating	0.00011327	18	ENSMUSG00000074148, ENSMUSG00000027995,	1	0	

	signaling pathway	7		ENSMUSG00000045322, ENSMUSG00000027843, ENSMUSG00000055994, ENSMUSG00000040751, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000040552, ENSMUSG00000022901, ENSMUSG00000050241, ENSMUSG00000030413, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000049109, ENSMUSG00000025473			
GO:0072676	lymphocyte migration	3.38E-08	10	ENSMUSG00000050232, ENSMUSG00000023078, ENSMUSG0000001444, ENSMUSG00000035042, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000074115, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000025473	1	0	
GO:0030593	neutrophil chemotaxis	9.25E-06	11	ENSMUSG00000055170, ENSMUSG00000048534, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000030786, ENSMUSG00000058715, ENSMUSG00000027398, ENSMUSG00000029380, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000029304	1	0	
GO:0051607	defense response to virus	2.55E-13	20	ENSMUSG00000055170, ENSMUSG00000040613, ENSMUSG00000045322, ENSMUSG00000025492, ENSMUSG00000029417, ENSMUSG00000024349, ENSMUSG00000066861, ENSMUSG00000037202, ENSMUSG00000004296, ENSMUSG00000053977, ENSMUSG00000032691, ENSMUSG00000020641, ENSMUSG00000022901, ENSMUSG00000032661,	1	0	

				ENSMUSG00000048806, ENSMUSG00000025746, ENSMUSG00000044583, ENSMUSG00000046718, ENSMUSG00000027639, ENSMUSG00000034855			
GO:0007517	muscle organ development	1	5	ENSMUSG00000022587, ENSMUSG00000020053, ENSMUSG00000058773, ENSMUSG00000034394, ENSMUSG00000006642	2.35E-07	32	ENSMUSG00000009471, ENSMUSG00000021506, ENSMUSG00000032366, ENSMUSG00000035606, ENSMUSG00000052911, ENSMUSG00000031274, ENSMUSG00000046714, ENSMUSG00000030672, ENSMUSG00000032010, ENSMUSG00000021909, ENSMUSG00000031972, ENSMUSG00000022996, ENSMUSG00000032085, ENSMUSG00000032060, ENSMUSG00000026459, ENSMUSG00000049641, ENSMUSG00000007877, ENSMUSG00000040289, ENSMUSG00000038119, ENSMUSG00000040752, ENSMUSG00000035458, ENSMUSG00000027470, ENSMUSG00000027077, ENSMUSG00000032340, ENSMUSG00000091898, ENSMUSG00000007815, ENSMUSG00000053093, ENSMUSG00000045103, ENSMUSG00000059741, ENSMUSG00000042903, ENSMUSG00000006235, ENSMUSG00000026418
GO:0002705	positive regulation of leukocyte mediated immunity	2.37E-08	17	ENSMUSG00000005696, ENSMUSG00000060802, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000026573, ENSMUSG00000061232, ENSMUSG00000004296, ENSMUSG00000015947, ENSMUSG00000073411, ENSMUSG00000050241, ENSMUSG00000030124, ENSMUSG00000024401, ENSMUSG00000024339,	1	2	ENSMUSG00000090877, ENSMUSG00000032076

				ENSMUSG00000030895, ENSMUSG00000037321, ENSMUSG00000067212			
GO:0006954	inflammatory response	1.57E-25	58	ENSMUSG00000036931, ENSMUSG00000027995, ENSMUSG00000035352, ENSMUSG00000030017, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000009185, ENSMUSG00000049103, ENSMUSG00000051439, ENSMUSG00000074115, ENSMUSG00000016529, ENSMUSG00000037731, ENSMUSG00000035385, ENSMUSG00000032691, ENSMUSG00000040017, ENSMUSG00000026166, ENSMUSG00000018930, ENSMUSG00000025804, ENSMUSG00000034652, ENSMUSG00000022534, ENSMUSG00000027398, ENSMUSG00000051498, ENSMUSG00000034855, ENSMUSG00000031551, ENSMUSG00000026770, ENSMUSG00000025473, ENSMUSG00000044701, ENSMUSG00000021423, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000056529, ENSMUSG00000058715, ENSMUSG00000035373, ENSMUSG00000000982, ENSMUSG00000057465, ENSMUSG00000026981, ENSMUSG00000015947, ENSMUSG00000021624, ENSMUSG00000040026, ENSMUSG00000023913, ENSMUSG00000029371, ENSMUSG00000023078, ENSMUSG00000029075, ENSMUSG00000030793, ENSMUSG00000044827, ENSMUSG0000003283, ENSMUSG00000037440,	1	10	ENSMUSG00000022040, ENSMUSG00000022868, ENSMUSG00000019326, ENSMUSG00000043496, ENSMUSG00000010051, ENSMUSG00000032911, ENSMUSG00000026984, ENSMUSG00000062778, ENSMUSG00000026874, ENSMUSG00000033350



				ENSMUSG00000026582, ENSMUSG00000024401, ENSMUSG00000026580, ENSMUSG00000044583, ENSMUSG00000025746, ENSMUSG00000029380, ENSMUSG00000041347, ENSMUSG00000026177, ENSMUSG00000033777, ENSMUSG00000037872			
GO:1900180	regulation of protein localization to nucleus	0.00371568 2	16	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000022548, ENSMUSG00000071005, ENSMUSG00000027699, ENSMUSG00000024349, ENSMUSG00000037313, ENSMUSG00000032691, ENSMUSG00000019942, ENSMUSG00000024401, ENSMUSG00000040296, ENSMUSG00000025746, ENSMUSG00000044583, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000078817	1	3	ENSMUSG00000059201, ENSMUSG00000059327, ENSMUSG00000010047
GO:0042269	regulation of natural killer cell mediated cytotoxicity	0.00042102 9	9	ENSMUSG00000005696, ENSMUSG00000050241, ENSMUSG00000030124, ENSMUSG00000079298, ENSMUSG00000030149, ENSMUSG00000024339, ENSMUSG00000073406, ENSMUSG00000037321, ENSMUSG00000004296	1	0	
GO:0006952	defense response	3.75E-60	129	ENSMUSG00000036931, ENSMUSG00000027995, ENSMUSG00000066861, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000017830, ENSMUSG00000053977, ENSMUSG00000075404, ENSMUSG00000022504, ENSMUSG00000040296, ENSMUSG00000040264, ENSMUSG00000030144, ENSMUSG00000037321, ENSMUSG00000031551, ENSMUSG00000025473, ENSMUSG00000069874,	1	25	ENSMUSG00000031495, ENSMUSG00000022868, ENSMUSG00000025889, ENSMUSG00000019326, ENSMUSG00000061780, ENSMUSG00000034783, ENSMUSG00000032911, ENSMUSG00000026984, ENSMUSG00000035486, ENSMUSG00000059230, ENSMUSG00000090877, ENSMUSG00000036216, ENSMUSG00000035459, ENSMUSG00000026874, ENSMUSG00000033350, ENSMUSG00000021055,

			ENSMUSG00000045322, ENSMUSG00000026068, ENSMUSG00000025492, ENSMUSG00000055994, ENSMUSG00000030149, ENSMUSG00000026896, ENSMUSG0000000982, ENSMUSG00000053175, ENSMUSG00000026656, ENSMUSG00000023913, ENSMUSG00000029075, ENSMUSG00000026582, ENSMUSG00000028268, ENSMUSG00000074151, ENSMUSG00000040613, ENSMUSG00000036905, ENSMUSG00000035352, ENSMUSG00000026822, ENSMUSG00000029379, ENSMUSG00000051439, ENSMUSG00000037202, ENSMUSG00000032691, ENSMUSG00000030413, ENSMUSG00000027398, ENSMUSG00000027639, ENSMUSG00000034459, ENSMUSG00000028362, ENSMUSG00000055170, ENSMUSG00000079363, ENSMUSG00000035042, ENSMUSG00000058715, ENSMUSG00000004296, ENSMUSG00000076612, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000021624, ENSMUSG00000040026, ENSMUSG00000023078, ENSMUSG00000041515, ENSMUSG00000037440, ENSMUSG00000078920, ENSMUSG00000024401, ENSMUSG00000090231, ENSMUSG00000054588, ENSMUSG00000026580, ENSMUSG00000025746, ENSMUSG00000033777, ENSMUSG00000060802, ENSMUSG00000009185, ENSMUSG00000079563, ENSMUSG00000037731, ENSMUSG00000016529,			ENSMUSG00000022040, ENSMUSG00000043496, ENSMUSG00000010051, ENSMUSG00000062778, ENSMUSG00000037071, ENSMUSG00000031780, ENSMUSG00000056978, ENSMUSG00000046834, ENSMUSG00000061958
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				ENSMUSG00000030148, ENSMUSG00000018930, ENSMUSG00000070034, ENSMUSG00000040253, ENSMUSG00000026222, ENSMUSG00000023341, ENSMUSG00000034652, ENSMUSG00000025804, ENSMUSG00000051498, ENSMUSG00000046718, ENSMUSG00000022534, ENSMUSG00000054072, ENSMUSG00000026770, ENSMUSG00000034855, ENSMUSG00000044701, ENSMUSG00000005696, ENSMUSG00000018920, ENSMUSG00000039236, ENSMUSG00000079362, ENSMUSG00000028270, ENSMUSG00000035373, ENSMUSG00000024371, ENSMUSG00000038357, ENSMUSG00000057465, ENSMUSG00000055172, ENSMUSG00000030793, ENSMUSG00000003283, ENSMUSG00000048806, ENSMUSG00000044583, ENSMUSG00000000386, ENSMUSG00000029380, ENSMUSG00000053219, ENSMUSG00000037872, ENSMUSG00000030017, ENSMUSG00000058427, ENSMUSG00000029417, ENSMUSG00000029298, ENSMUSG00000074115, ENSMUSG00000035385, ENSMUSG00000020641, ENSMUSG00000040017, ENSMUSG00000026166, ENSMUSG00000029915, ENSMUSG00000028874, ENSMUSG00000079227, ENSMUSG00000027514, ENSMUSG00000021423, ENSMUSG00000028269, ENSMUSG00000026104, ENSMUSG00000056529, ENSMUSG00000092005, ENSMUSG00000024349,			
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				ENSMUSG00000026981, ENSMUSG00000022901, ENSMUSG00000044827, ENSMUSG00000029371, ENSMUSG00000032661, ENSMUSG00000046879, ENSMUSG00000034438, ENSMUSG00000041347, ENSMUSG00000026177			
GO:0050715	positive regulation of cytokine secretion	1.17E-06	15	ENSMUSG00000030142, ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000030793, ENSMUSG00000029915, ENSMUSG00000055994, ENSMUSG00000028874, ENSMUSG00000024401, ENSMUSG00000051439, ENSMUSG00000074115, ENSMUSG00000044811, ENSMUSG00000016529, ENSMUSG00000000982, ENSMUSG00000079227, ENSMUSG00000032691	1	5	ENSMUSG00000031495, ENSMUSG00000026874, ENSMUSG00000032076, ENSMUSG00000062778, ENSMUSG00000010047
GO:0009615	response to virus	1.39E-22	40	ENSMUSG00000024079, ENSMUSG00000040613, ENSMUSG00000035692, ENSMUSG00000026822, ENSMUSG00000060747, ENSMUSG00000029417, ENSMUSG00000066861, ENSMUSG00000037202, ENSMUSG00000053977, ENSMUSG00000032691, ENSMUSG00000020641, ENSMUSG00000029605, ENSMUSG00000029915, ENSMUSG00000023341, ENSMUSG00000040296, ENSMUSG00000046718, ENSMUSG00000045932, ENSMUSG00000027639, ENSMUSG00000034855, ENSMUSG00000027514, ENSMUSG00000034459, ENSMUSG00000055170, ENSMUSG00000039236, ENSMUSG00000045322, ENSMUSG00000025492, ENSMUSG00000024349,	1	4	ENSMUSG00000034783, ENSMUSG00000010051, ENSMUSG00000010047, ENSMUSG00000015405

				ENSMUSG00000026573, ENSMUSG00000026896, ENSMUSG00000004296, ENSMUSG00000053175, ENSMUSG00000022901, ENSMUSG00000025498, ENSMUSG00000032661, ENSMUSG00000036986, ENSMUSG00000079017, ENSMUSG00000024401, ENSMUSG00000048806, ENSMUSG00000000386, ENSMUSG00000025746, ENSMUSG00000044583			
GO:0051222	positive regulation of protein transport	1.70E-08	27	ENSMUSG00000030142, ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000071005, ENSMUSG00000027699, ENSMUSG00000024349, ENSMUSG00000051439, ENSMUSG00000074115, ENSMUSG00000016529, ENSMUSG00000000982, ENSMUSG00000032691, ENSMUSG00000019942, ENSMUSG00000030793, ENSMUSG00000029075, ENSMUSG00000028874, ENSMUSG00000029915, ENSMUSG00000024401, ENSMUSG00000040296, ENSMUSG00000020053, ENSMUSG00000044583, ENSMUSG00000025746, ENSMUSG00000027398, ENSMUSG00000044811, ENSMUSG00000079227, ENSMUSG00000078817	1	9	ENSMUSG00000024990, ENSMUSG00000034584, ENSMUSG00000031495, ENSMUSG00000059201, ENSMUSG00000062778, ENSMUSG00000059327, ENSMUSG00000026874, ENSMUSG00000032076, ENSMUSG00000010047
GO:0014706	striated muscle tissue development	1	2	ENSMUSG00000022587, ENSMUSG00000020053	1.59E-05	29	ENSMUSG00000009471, ENSMUSG00000021506, ENSMUSG00000035458, ENSMUSG00000032366, ENSMUSG00000027470, ENSMUSG00000035606, ENSMUSG00000052911, ENSMUSG00000031274, ENSMUSG00000032340, ENSMUSG00000046714,

							ENSMUSG0000007815, ENSMUSG00000091898, ENSMUSG00000030672, ENSMUSG00000053093, ENSMUSG00000021909, ENSMUSG00000031972, ENSMUSG00000024990, ENSMUSG00000022996, ENSMUSG00000045103, ENSMUSG00000059741, ENSMUSG00000026459, ENSMUSG00000049641, ENSMUSG0000006235, ENSMUSG00000026418, ENSMUSG0000007877, ENSMUSG00000031980, ENSMUSG00000040289, ENSMUSG00000038119, ENSMUSG00000040752
GO:0015669	gas transport	1	0		4.80E-06	9	ENSMUSG00000020295, ENSMUSG00000073063, ENSMUSG00000078621, ENSMUSG00000018893, ENSMUSG00000021032, ENSMUSG00000055609, ENSMUSG00000052305, ENSMUSG00000052187, ENSMUSG00000052217
GO:0051250	negative regulation of lymphocyte activation	0.00171868 5	15	ENSMUSG00000016496, ENSMUSG00000026656, ENSMUSG00000036931, ENSMUSG00000030124, ENSMUSG00000073412, ENSMUSG00000027843, ENSMUSG00000016498, ENSMUSG00000026011, ENSMUSG00000071552, ENSMUSG00000022876, ENSMUSG00000048806, ENSMUSG00000026573, ENSMUSG00000016529, ENSMUSG00000031551, ENSMUSG00000026770	1	2	ENSMUSG00000063632, ENSMUSG00000024653
GO:0042102	positive regulation of T cell proliferation	0.00026321 1	14	ENSMUSG00000055170, ENSMUSG00000075122, ENSMUSG00000035042, ENSMUSG00000016498, ENSMUSG00000024397, ENSMUSG00000026573,	1	0	

				ENSMUSG00000020053, ENSMUSG000000025746, ENSMUSG00000027398, ENSMUSG00000049103, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000026770, ENSMUSG00000022901			
GO:0002831	regulation of response to biotic stimulus	1.66E-05	13	ENSMUSG00000050241, ENSMUSG00000029371, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000079620, ENSMUSG00000036986, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000040296, ENSMUSG0000004296, ENSMUSG00000034459, ENSMUSG00000000791, ENSMUSG00000026770	1	0	
GO:0031341	regulation of cell killing	1.25E-10	18	ENSMUSG00000005696, ENSMUSG000000055170, ENSMUSG00000060802, ENSMUSG00000030149, ENSMUSG00000026573, ENSMUSG00000061232, ENSMUSG00000073406, ENSMUSG00000004296, ENSMUSG00000073411, ENSMUSG00000050241, ENSMUSG00000029371, ENSMUSG00000030124, ENSMUSG00000079620, ENSMUSG00000079298, ENSMUSG00000024339, ENSMUSG00000079227, ENSMUSG00000037321, ENSMUSG00000067212	1	2	ENSMUSG00000090877, ENSMUSG00000032076
GO:0048285	organelle fission	8.06E-17	47	ENSMUSG00000017716, ENSMUSG00000015880, ENSMUSG00000024791, ENSMUSG00000050107, ENSMUSG00000045273, ENSMUSG00000024989, ENSMUSG00000068744, ENSMUSG00000019942, ENSMUSG00000045328, ENSMUSG00000006398, ENSMUSG00000028873, ENSMUSG00000002055,	1	7	ENSMUSG00000007815, ENSMUSG00000025862, ENSMUSG00000001403, ENSMUSG00000062380, ENSMUSG00000024500, ENSMUSG00000031176, ENSMUSG000000036782

				<p>ENSMUSG00000027379, ENSMUSG00000024056,  ENSMUSG00000027469, ENSMUSG00000027331,  ENSMUSG00000027715, ENSMUSG00000029414,  ENSMUSG00000044201, ENSMUSG00000026683,  ENSMUSG00000023505, ENSMUSG00000041431,  ENSMUSG00000040084, ENSMUSG00000036223,  ENSMUSG00000027306, ENSMUSG00000023015,  ENSMUSG00000024795, ENSMUSG00000069910,  ENSMUSG00000025001, ENSMUSG00000048922,  ENSMUSG00000051378, ENSMUSG00000020897,  ENSMUSG00000017499, ENSMUSG00000071350,  ENSMUSG00000020415, ENSMUSG00000028678,  ENSMUSG00000012443, ENSMUSG00000030867,  ENSMUSG00000074476, ENSMUSG00000017861,  ENSMUSG00000023940, ENSMUSG00000072082,  ENSMUSG00000026779, ENSMUSG00000033952,  ENSMUSG00000058290, ENSMUSG00000032218,  ENSMUSG00000027496</p>			
GO:0071310	cellular response to organic substance	9.62E-08	66	<p>ENSMUSG00000066861, ENSMUSG00000049103,  ENSMUSG00000018899, ENSMUSG00000078853,  ENSMUSG00000026073, ENSMUSG00000028072,  ENSMUSG00000054203, ENSMUSG00000040253,  ENSMUSG00000025804, ENSMUSG00000040264,  ENSMUSG00000045932, ENSMUSG00000000182,  ENSMUSG00000054072, ENSMUSG00000026770,  ENSMUSG00000091875, ENSMUSG00000038037,</p>	1	32	<p>ENSMUSG00000031134, ENSMUSG00000009471,  ENSMUSG00000025810, ENSMUSG00000027796,  ENSMUSG00000055980, ENSMUSG00000046532,  ENSMUSG00000046714, ENSMUSG00000031841,  ENSMUSG00000024028, ENSMUSG00000018566,  ENSMUSG00000021055, ENSMUSG00000020889,  ENSMUSG0000005705, ENSMUSG00000022996,  ENSMUSG00000031760, ENSMUSG00000029195,</p>



				ENSMUSG00000026068, ENSMUSG00000025492, ENSMUSG00000079362, ENSMUSG00000028270, ENSMUSG0000000982, ENSMUSG00000030793, ENSMUSG00000028268, ENSMUSG00000028068, ENSMUSG00000038418, ENSMUSG00000058818, ENSMUSG00000048806, ENSMUSG00000053219, ENSMUSG00000024079, ENSMUSG0000003665, ENSMUSG00000078922, ENSMUSG00000029377, ENSMUSG00000029811, ENSMUSG00000029298, ENSMUSG00000043263, ENSMUSG00000035385, ENSMUSG00000017146, ENSMUSG00000037860, ENSMUSG00000073489, ENSMUSG00000039997, ENSMUSG00000026535, ENSMUSG00000027398, ENSMUSG00000034459, ENSMUSG00000041324, ENSMUSG00000055170, ENSMUSG00000068227, ENSMUSG00000079363, ENSMUSG00000028269, ENSMUSG00000026104, ENSMUSG00000035042, ENSMUSG00000071714, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000049734, ENSMUSG00000023078, ENSMUSG00000073555, ENSMUSG00000074896, ENSMUSG00000024401, ENSMUSG00000034438, ENSMUSG00000026580, ENSMUSG00000054588, ENSMUSG00000025746, ENSMUSG00000037868, ENSMUSG00000071713			ENSMUSG00000010051, ENSMUSG00000026459, ENSMUSG00000029361, ENSMUSG00000022878, ENSMUSG00000042812, ENSMUSG00000059201, ENSMUSG00000041658, ENSMUSG00000005373, ENSMUSG00000035486, ENSMUSG00000001494, ENSMUSG00000027820, ENSMUSG00000031144, ENSMUSG00000030747, ENSMUSG00000042903, ENSMUSG00000006235, ENSMUSG00000010047
GO:0002704	negative regulation of	5.71E-06	10	ENSMUSG00000026656, ENSMUSG00000050241,	1	0	

	leukocyte mediated immunity			ENSMUSG00000055994, ENSMUSG00000079298, ENSMUSG00000079620, ENSMUSG00000024339, ENSMUSG00000048806, ENSMUSG00000026573, ENSMUSG00000073406, ENSMUSG00000037321			
GO:0002673	regulation of acute inflammatory response	0.00389412 6	11	ENSMUSG00000026656, ENSMUSG00000035042, ENSMUSG00000024401, ENSMUSG00000058715, ENSMUSG00000025746, ENSMUSG00000025804, ENSMUSG00000027398, ENSMUSG00000079227, ENSMUSG00000030111, ENSMUSG00000015947, ENSMUSG00000025473	1	0	
GO:0060048	cardiac muscle contraction	1	0		0.005674685	8	ENSMUSG00000059741, ENSMUSG00000091898, ENSMUSG00000035458, ENSMUSG00000061086, ENSMUSG00000032366, ENSMUSG00000021909, ENSMUSG00000061816, ENSMUSG00000020623
GO:0051707	response to other organism	2.09E-41	91	ENSMUSG00000060802, ENSMUSG00000027995, ENSMUSG00000035692, ENSMUSG00000066861, ENSMUSG00000079563, ENSMUSG00000061232, ENSMUSG00000016529, ENSMUSG00000053977, ENSMUSG00000029605, ENSMUSG00000070034, ENSMUSG00000040253, ENSMUSG00000023341, ENSMUSG00000040296, ENSMUSG00000025804, ENSMUSG00000046718, ENSMUSG00000051498, ENSMUSG00000045932, ENSMUSG00000054072, ENSMUSG00000034855, ENSMUSG00000031551, ENSMUSG00000039236, ENSMUSG00000069874, ENSMUSG00000045322, ENSMUSG00000025492,	1	14	ENSMUSG00000020889, ENSMUSG00000031495, ENSMUSG00000025889, ENSMUSG00000034783, ENSMUSG00000010051, ENSMUSG00000059230, ENSMUSG00000028036, ENSMUSG00000015405, ENSMUSG00000037071, ENSMUSG00000036216, ENSMUSG00000025991, ENSMUSG00000056978, ENSMUSG00000035459, ENSMUSG00000010047

				ENSMUSG00000079362, ENSMUSG00000055994, ENSMUSG00000030149, ENSMUSG00000028270, ENSMUSG00000038357, ENSMUSG00000026896, ENSMUSG00000000982, ENSMUSG00000053175, ENSMUSG00000025498, ENSMUSG00000026656, ENSMUSG00000003283, ENSMUSG00000028268, ENSMUSG00000079017, ENSMUSG00000048806, ENSMUSG00000000386, ENSMUSG00000044583, ENSMUSG00000022126, ENSMUSG00000053219, ENSMUSG00000024079, ENSMUSG00000027832, ENSMUSG00000040613, ENSMUSG00000026822, ENSMUSG00000058427, ENSMUSG00000060747, ENSMUSG00000029417, ENSMUSG00000038209, ENSMUSG00000029298, ENSMUSG00000051439, ENSMUSG00000037202, ENSMUSG00000035385, ENSMUSG00000032691, ENSMUSG00000020641, ENSMUSG00000020638, ENSMUSG00000030413, ENSMUSG00000028874, ENSMUSG00000029915, ENSMUSG00000027398, ENSMUSG00000059089, ENSMUSG00000027639, ENSMUSG00000079227, ENSMUSG00000027514, ENSMUSG00000034459, ENSMUSG00000028362, ENSMUSG00000055170, ENSMUSG00000028269, ENSMUSG00000026104, ENSMUSG00000035042, ENSMUSG00000056529, ENSMUSG00000058715, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000076612,			
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				ENSMUSG0000004296, ENSMUSG00000015947, ENSMUSG00000022901, ENSMUSG00000044827, ENSMUSG00000041515, ENSMUSG00000023078, ENSMUSG00000029371, ENSMUSG00000032661, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000054588, ENSMUSG00000024339, ENSMUSG00000025746, ENSMUSG00000041347, ENSMUSG00000026177			
GO:0051346	negative regulation of hydrolase activity	0.14408265 6	27	ENSMUSG00000017716, ENSMUSG000000074148, ENSMUSG00000029664, ENSMUSG00000066363, ENSMUSG00000021403, ENSMUSG000000041481, ENSMUSG00000059657, ENSMUSG00000068129, ENSMUSG00000041536, ENSMUSG00000023132, ENSMUSG00000001131, ENSMUSG00000058207, ENSMUSG00000079597, ENSMUSG00000079012, ENSMUSG00000024401, ENSMUSG00000025129, ENSMUSG00000061947, ENSMUSG00000020053, ENSMUSG00000025746, ENSMUSG00000066364, ENSMUSG00000021091, ENSMUSG00000030111, ENSMUSG00000066361, ENSMUSG00000034459, ENSMUSG00000026779, ENSMUSG00000051949, ENSMUSG00000021451	0.000273234	34	ENSMUSG00000025889, ENSMUSG00000026715, ENSMUSG00000090877, ENSMUSG00000041688, ENSMUSG00000039278, ENSMUSG00000061311, ENSMUSG00000026874, ENSMUSG00000023336, ENSMUSG00000031760, ENSMUSG00000028356, ENSMUSG00000030359, ENSMUSG00000058260, ENSMUSG00000019278, ENSMUSG00000055561, ENSMUSG00000022871, ENSMUSG00000070531, ENSMUSG00000032060, ENSMUSG00000036867, ENSMUSG00000029361, ENSMUSG00000000881, ENSMUSG00000025860, ENSMUSG00000035458, ENSMUSG00000055653, ENSMUSG00000022868, ENSMUSG00000044594, ENSMUSG00000058017, ENSMUSG00000067006, ENSMUSG00000059956, ENSMUSG00000026327, ENSMUSG00000032081, ENSMUSG00000032083, ENSMUSG00000027442, ENSMUSG00000046814, ENSMUSG00000031980
GO:0045087	innate immune response	1.74E-38	63	ENSMUSG00000074151, ENSMUSG00000036905,	1	5	ENSMUSG00000046834, ENSMUSG00000025889,

			ENSMUSG00000027995, ENSMUSG00000026822, ENSMUSG00000029298, ENSMUSG00000051439, ENSMUSG00000017830, ENSMUSG00000035385, ENSMUSG00000075404, ENSMUSG00000030413, ENSMUSG00000030148, ENSMUSG00000029915, ENSMUSG00000070034, ENSMUSG00000028874, ENSMUSG00000040253, ENSMUSG00000022504, ENSMUSG00000023341, ENSMUSG00000026222, ENSMUSG00000040296, ENSMUSG00000040264, ENSMUSG00000030144, ENSMUSG00000046718, ENSMUSG00000051498, ENSMUSG00000027639, ENSMUSG00000054072, ENSMUSG00000027514, ENSMUSG00000034459, ENSMUSG00000044701, ENSMUSG00000021423, ENSMUSG00000039236, ENSMUSG00000018920, ENSMUSG00000028269, ENSMUSG00000079363, ENSMUSG00000069874, ENSMUSG00000045322, ENSMUSG00000026068, ENSMUSG00000026104, ENSMUSG00000025492, ENSMUSG00000079362, ENSMUSG00000092005, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000024349, ENSMUSG00000028270, ENSMUSG00000024371, ENSMUSG00000026896, ENSMUSG0000004296, ENSMUSG00000000791, ENSMUSG00000055172, ENSMUSG00000015947, ENSMUSG00000021624, ENSMUSG00000044827, ENSMUSG00000003283, ENSMUSG00000037440,			ENSMUSG00000061780, ENSMUSG00000043496, ENSMUSG00000026874
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				ENSMUSG00000046879, ENSMUSG00000028268, ENSMUSG00000090231, ENSMUSG00000034438, ENSMUSG00000054588, ENSMUSG00000000386, ENSMUSG00000044583, ENSMUSG00000026177, ENSMUSG00000033777			
GO:0001912	positive regulation of leukocyte mediated cytotoxicity	3.18E-06	12	ENSMUSG00000073411, ENSMUSG00000005696, ENSMUSG00000066082, ENSMUSG00000050241, ENSMUSG00000030124, ENSMUSG00000030149, ENSMUSG00000024339, ENSMUSG00000026573, ENSMUSG00000061232, ENSMUSG00000004296, ENSMUSG00000037321, ENSMUSG00000067212	1	2	ENSMUSG00000090877, ENSMUSG00000032076
GO:0052509	positive regulation by symbiont of host defense response	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	
GO:0002690	positive regulation of leukocyte chemotaxis	8.90E-06	13	ENSMUSG00000023913, ENSMUSG00000023078, ENSMUSG00000018930, ENSMUSG00000035042, ENSMUSG00000071005, ENSMUSG00000024397, ENSMUSG00000026573, ENSMUSG00000040552, ENSMUSG00000035373, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000034855	1	0	
GO:0008015	blood circulation	1	7	ENSMUSG00000030525, ENSMUSG00000040552, ENSMUSG00000026104, ENSMUSG00000018930, ENSMUSG00000041347, ENSMUSG00000031891, ENSMUSG00000054136	4.89E-06	30	ENSMUSG00000020123, ENSMUSG00000035458, ENSMUSG00000059201, ENSMUSG00000032366, ENSMUSG00000019326, ENSMUSG00000024039, ENSMUSG00000041616, ENSMUSG00000046714, ENSMUSG00000001865, ENSMUSG00000091898,

							ENSMUSG00000061068, ENSMUSG00000002588, ENSMUSG00000021909, ENSMUSG00000041688, ENSMUSG00000061816, ENSMUSG00000022040, ENSMUSG00000031489, ENSMUSG00000061086, ENSMUSG00000020623, ENSMUSG00000015405, ENSMUSG00000059741, ENSMUSG00000029019, ENSMUSG00000022206, ENSMUSG00000037010, ENSMUSG00000029361, ENSMUSG00000031980, ENSMUSG00000057880, ENSMUSG00000024027, ENSMUSG00000022878, ENSMUSG00000040752
GO:0002757	immune response-activating signal transduction	2.99E-05	18	ENSMUSG00000074148, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000027843, ENSMUSG00000055994, ENSMUSG00000040751, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000040552, ENSMUSG00000022901, ENSMUSG00000050241, ENSMUSG00000030413, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000049109, ENSMUSG00000025473	1	0	
GO:0001916	positive regulation of T cell mediated cytotoxicity	0.00079680 1	8	ENSMUSG00000073411, ENSMUSG00000060802, ENSMUSG00000024339, ENSMUSG00000026573, ENSMUSG00000061232, ENSMUSG00000037321, ENSMUSG0000004296, ENSMUSG00000067212	1	0	
GO:0019221	cytokine-mediated signaling pathway	3.28E-06	23	ENSMUSG00000038037, ENSMUSG00000068227, ENSMUSG00000026068, ENSMUSG00000026104, ENSMUSG00000025492, ENSMUSG00000071714,	1	5	ENSMUSG0000006235, ENSMUSG00000059201, ENSMUSG00000031760, ENSMUSG00000024028, ENSMUSG00000022878

				ENSMUSG00000029377, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000026073, ENSMUSG00000030793, ENSMUSG00000023078, ENSMUSG00000024401, ENSMUSG00000038418, ENSMUSG00000058818, ENSMUSG00000025804, ENSMUSG00000025746, ENSMUSG00000027398, ENSMUSG00000054072, ENSMUSG00000071713, ENSMUSG00000026770			
GO:0031348	negative regulation of defense response	0.00010057 9	16	ENSMUSG00000055994, ENSMUSG00000030525, ENSMUSG00000021322, ENSMUSG00000016529, ENSMUSG00000073406, ENSMUSG00000004296, ENSMUSG00000026656, ENSMUSG00000050241, ENSMUSG00000079298, ENSMUSG00000024339, ENSMUSG00000025804, ENSMUSG00000042726, ENSMUSG00000030111, ENSMUSG00000037321, ENSMUSG00000026770, ENSMUSG00000034459	1	5	ENSMUSG00000026715, ENSMUSG00000042812, ENSMUSG00000024028, ENSMUSG00000022878, ENSMUSG00000017697
GO:0032649	regulation of interferon-gamma production	4.88E-07	16	ENSMUSG00000044701, ENSMUSG00000050241, ENSMUSG00000045322, ENSMUSG00000041515, ENSMUSG00000055994, ENSMUSG00000024401, ENSMUSG00000030149, ENSMUSG00000026573, ENSMUSG00000044583, ENSMUSG00000027398, ENSMUSG00000049103, ENSMUSG00000016529, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000026177, ENSMUSG00000053175	1	0	
GO:0051983	regulation of chromosome	0.00011357	9	ENSMUSG00000045328, ENSMUSG00000017499,	1	0	



	segregation	7		ENSMUSG00000024791, ENSMUSG00000028678, ENSMUSG0000002055, ENSMUSG00000027379, ENSMUSG00000027699, ENSMUSG00000041431, ENSMUSG00000023015			
GO:0052553	modulation by symbiont of host immune response	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	
GO:0052166	positive regulation by symbiont of host innate immune response	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	
GO:0042742	defense response to bacterium	1.00E-14	34	ENSMUSG00000027995, ENSMUSG00000029298, ENSMUSG00000079563, ENSMUSG00000061232, ENSMUSG00000016529, ENSMUSG00000030413, ENSMUSG00000028874, ENSMUSG00000040253, ENSMUSG00000051498, ENSMUSG00000054072, ENSMUSG00000028362, ENSMUSG00000055170, ENSMUSG00000045322, ENSMUSG00000069874, ENSMUSG00000028269, ENSMUSG00000079362, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000028270, ENSMUSG00000038357, ENSMUSG00000076612, ENSMUSG0000004296, ENSMUSG00000053175, ENSMUSG00000015947, ENSMUSG00000023078, ENSMUSG00000041515, ENSMUSG00000003283, ENSMUSG00000028268, ENSMUSG00000024401, ENSMUSG00000048806, ENSMUSG00000054588,	1	6	ENSMUSG00000036216, ENSMUSG00000031495, ENSMUSG00000056978, ENSMUSG00000035459, ENSMUSG00000059230, ENSMUSG00000037071

				ENSMUSG00000053219, ENSMUSG00000026177			
GO:0002699	positive regulation of immune effector process	5.16E-10	25	ENSMUSG0000005696, ENSMUSG00000055170, ENSMUSG00000060802, ENSMUSG00000027995, ENSMUSG0000001444, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000035385, ENSMUSG00000004296, ENSMUSG00000015947, ENSMUSG00000073411, ENSMUSG00000050241, ENSMUSG00000030124, ENSMUSG00000028874, ENSMUSG00000024401, ENSMUSG00000024339, ENSMUSG00000025746, ENSMUSG00000034652, ENSMUSG00000030895, ENSMUSG00000037321, ENSMUSG00000067212	1	3	ENSMUSG00000090877, ENSMUSG00000042812, ENSMUSG00000032076
GO:0002474	antigen processing and presentation of peptide antigen via MHC class I	1.25E-07	11	ENSMUSG00000073411, ENSMUSG00000060802, ENSMUSG00000058715, ENSMUSG00000073409, ENSMUSG00000024339, ENSMUSG00000035929, ENSMUSG00000061232, ENSMUSG00000037321, ENSMUSG00000015947, ENSMUSG00000060550, ENSMUSG00000067212	1	0	
GO:0006937	regulation of muscle contraction	1	0		0.005723771	14	ENSMUSG00000061723, ENSMUSG00000030730, ENSMUSG00000031097, ENSMUSG00000064179, ENSMUSG00000035458, ENSMUSG00000027470, ENSMUSG00000007122, ENSMUSG00000032511, ENSMUSG00000017697, ENSMUSG00000029236, ENSMUSG00000059741, ENSMUSG00000091898,

							ENSMUSG00000026418, ENSMUSG00000021909
GO:0052031	modulation by symbiont of host defense response	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	
GO:0034341	response to interferon-gamma	8.28E-18	21	ENSMUSG00000018920, ENSMUSG00000028269, ENSMUSG00000079363, ENSMUSG00000069874, ENSMUSG00000026104, ENSMUSG00000079362, ENSMUSG00000035042, ENSMUSG00000028270, ENSMUSG00000029298, ENSMUSG00000035385, ENSMUSG0000004296, ENSMUSG0000000791, ENSMUSG00000075404, ENSMUSG00000028268, ENSMUSG00000040253, ENSMUSG00000022504, ENSMUSG00000034438, ENSMUSG00000054588, ENSMUSG00000026222, ENSMUSG00000040264, ENSMUSG00000026177	1	0	
GO:0051825	adhesion to other organism involved in symbiotic interaction	0.00051139 6	6	ENSMUSG00000040253, ENSMUSG00000028270, ENSMUSG00000028269, ENSMUSG00000029298, ENSMUSG00000079362, ENSMUSG00000028268	1	0	
GO:0043901	negative regulation of multi-organism process	4.08E-05	10	ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000041515, ENSMUSG00000055994, ENSMUSG00000024401, ENSMUSG00000038357, ENSMUSG00000016529, ENSMUSG0000004296, ENSMUSG00000026770, ENSMUSG00000034459	1	0	
GO:0045824	negative regulation of innate immune response	0.00017017 6	8	ENSMUSG00000024339, ENSMUSG00000050241, ENSMUSG00000025804, ENSMUSG00000073406, ENSMUSG00000037321, ENSMUSG00000042726,	1	0	

				ENSMUSG00000079298, ENSMUSG00000030111			
GO:0002703	regulation of leukocyte mediated immunity	7.99E-13	28	ENSMUSG00000055170, ENSMUSG00000055170, ENSMUSG00000060802, ENSMUSG00000001444, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000073406, ENSMUSG00000004296, ENSMUSG00000015947, ENSMUSG00000026656, ENSMUSG00000073411, ENSMUSG00000050241, ENSMUSG00000029371, ENSMUSG00000030124, ENSMUSG00000028874, ENSMUSG00000079620, ENSMUSG00000079298, ENSMUSG00000024401, ENSMUSG00000024339, ENSMUSG00000048806, ENSMUSG00000034652, ENSMUSG00000030895, ENSMUSG00000037321, ENSMUSG00000067212	1	3	ENSMUSG00000090877, ENSMUSG00000042812, ENSMUSG00000032076
GO:0002366	leukocyte activation involved in immune response	9.62E-06	17	ENSMUSG00000055170, ENSMUSG00000040528, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000040751, ENSMUSG00000035673, ENSMUSG00000039748, ENSMUSG00000058715, ENSMUSG00000040627, ENSMUSG00000000982, ENSMUSG00000004296, ENSMUSG00000053175, ENSMUSG00000034652, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000026177	1	0	
GO:0032653	regulation of interleukin-10 production	0.000421029	9	ENSMUSG00000026656, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000058715,	1	0	

				ENSMUSG00000071552, ENSMUSG00000026573, ENSMUSG00000004296, ENSMUSG00000031551, ENSMUSG00000053175			
GO:0019882	antigen processing and presentation	9.74E-11	19	ENSMUSG00000055170, ENSMUSG00000060802, ENSMUSG00000067341, ENSMUSG00000058715, ENSMUSG00000035929, ENSMUSG00000061232, ENSMUSG00000015947, ENSMUSG00000060550, ENSMUSG00000073411, ENSMUSG00000026656, ENSMUSG00000078452, ENSMUSG00000073409, ENSMUSG00000024339, ENSMUSG00000024337, ENSMUSG00000024338, ENSMUSG00000037321, ENSMUSG00000036469, ENSMUSG00000026177, ENSMUSG00000067212	1	0	
GO:0045410	positive regulation of interleukin-6 biosynthetic process	0.00907611	5	ENSMUSG00000029377, ENSMUSG00000055170, ENSMUSG00000044827, ENSMUSG00000027398, ENSMUSG00000051498	1	0	
GO:2000106	regulation of leukocyte apoptosis	0.00652128 7	10	ENSMUSG00000036931, ENSMUSG00000020897, ENSMUSG00000029075, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000071005, ENSMUSG00000016529, ENSMUSG00000079227, ENSMUSG00000031551, ENSMUSG00000025473	1	2	ENSMUSG00000061311, ENSMUSG00000017697
GO:0030595	leukocyte chemotaxis	1.75E-13	23	ENSMUSG00000055170, ENSMUSG00000035352, ENSMUSG00000048534, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000035042, ENSMUSG00000071005, ENSMUSG00000058715, ENSMUSG00000026573, ENSMUSG00000035373,	1	0	

				ENSMUSG00000049103, ENSMUSG00000074115, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000029304, ENSMUSG00000050232, ENSMUSG00000023078, ENSMUSG00000018930, ENSMUSG00000030786, ENSMUSG00000025804, ENSMUSG00000027398, ENSMUSG00000029380, ENSMUSG00000025473			
GO:2000401	regulation of lymphocyte migration	4.43E-07	10	ENSMUSG00000023078, ENSMUSG00000018930, ENSMUSG00000035042, ENSMUSG00000022548, ENSMUSG00000024397, ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG00000000982	1	0	
GO:0002684	positive regulation of immune system process	2.07E-24	69	ENSMUSG00000060802, ENSMUSG00000027995, ENSMUSG00000036887, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000018930, ENSMUSG00000020053, ENSMUSG00000034652, ENSMUSG00000030895, ENSMUSG00000051498, ENSMUSG00000037321, ENSMUSG00000034855, ENSMUSG00000031551, ENSMUSG00000026770, ENSMUSG00000025473, ENSMUSG0000005696, ENSMUSG00000045322, ENSMUSG00000001444, ENSMUSG00000040751, ENSMUSG00000055994, ENSMUSG00000030149, ENSMUSG00000040552, ENSMUSG00000035373, ENSMUSG00000024371, ENSMUSG00000000982, ENSMUSG00000055172, ENSMUSG00000023913, ENSMUSG00000050241,	1	11	ENSMUSG00000031380, ENSMUSG00000042812, ENSMUSG00000019326, ENSMUSG00000061780, ENSMUSG00000043496, ENSMUSG00000017697, ENSMUSG00000090877, ENSMUSG00000046834, ENSMUSG00000026874, ENSMUSG00000032076, ENSMUSG00000026532

				<p>ENSMUSG00000029075, ENSMUSG00000030124,  ENSMUSG00000026582, ENSMUSG00000016498,  ENSMUSG00000024397, ENSMUSG00000044583,  ENSMUSG00000074148, ENSMUSG00000036905,  ENSMUSG00000071005, ENSMUSG00000029377,  ENSMUSG00000035385, ENSMUSG00000073411,  ENSMUSG00000030413, ENSMUSG00000075122,  ENSMUSG00000028874, ENSMUSG00000030365,  ENSMUSG00000026011, ENSMUSG00000027398,  ENSMUSG00000067212, ENSMUSG00000055170,  ENSMUSG00000027843, ENSMUSG00000035042,  ENSMUSG00000092005, ENSMUSG00000058715,  ENSMUSG00000024349, ENSMUSG00000026573,  ENSMUSG00000020310, ENSMUSG00000004296,  ENSMUSG00000000791, ENSMUSG00000022901,  ENSMUSG00000015947, ENSMUSG00000023078,  ENSMUSG00000037440, ENSMUSG00000024401,  ENSMUSG00000090231, ENSMUSG00000024339,  ENSMUSG00000026580, ENSMUSG00000025746,  ENSMUSG00000041347, ENSMUSG00000049109,  ENSMUSG00000026177</p>			
GO:0019752	carboxylic acid metabolic process	1	13	<p>ENSMUSG00000030268, ENSMUSG00000038963,  ENSMUSG00000003484, ENSMUSG00000037440,  ENSMUSG00000017146, ENSMUSG00000039519,  ENSMUSG00000050370, ENSMUSG00000021266,  ENSMUSG00000018907, ENSMUSG00000027199,</p>	0.000136703	55	<p>ENSMUSG00000037686, ENSMUSG00000032263,  ENSMUSG00000033327, ENSMUSG00000032262,  ENSMUSG00000025889, ENSMUSG00000062515,  ENSMUSG00000020182, ENSMUSG00000046402,  ENSMUSG0000002588, ENSMUSG0000002010,</p>

				ENSMUSG00000022126, ENSMUSG00000031551, ENSMUSG00000020010			ENSMUSG00000004038, ENSMUSG00000032310, ENSMUSG00000032418, ENSMUSG00000027513, ENSMUSG00000032807, ENSMUSG00000032279, ENSMUSG00000067653, ENSMUSG00000019278, ENSMUSG00000074183, ENSMUSG00000037071, ENSMUSG00000029361, ENSMUSG00000032348, ENSMUSG00000025202, ENSMUSG00000025153, ENSMUSG00000057880, ENSMUSG00000073424, ENSMUSG00000002769, ENSMUSG00000022878, ENSMUSG00000078597, ENSMUSG00000030399, ENSMUSG00000032349, ENSMUSG00000059201, ENSMUSG00000066072, ENSMUSG00000021622, ENSMUSG00000004885, ENSMUSG00000024039, ENSMUSG00000030972, ENSMUSG00000058135, ENSMUSG0000000168, ENSMUSG00000031299, ENSMUSG00000025991, ENSMUSG00000032315, ENSMUSG00000027820, ENSMUSG00000090150, ENSMUSG00000022040, ENSMUSG00000075217, ENSMUSG00000028167, ENSMUSG00000031425, ENSMUSG00000024892, ENSMUSG00000029695, ENSMUSG00000041220, ENSMUSG00000035202, ENSMUSG00000050195, ENSMUSG00000020532, ENSMUSG00000027380
GO:0050727	regulation of inflammatory response	1.20E-05	24	ENSMUSG00000045322, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000022548, ENSMUSG00000035673, ENSMUSG00000058715,	1	11	ENSMUSG00000042812, ENSMUSG00000022868, ENSMUSG00000019326, ENSMUSG00000062515, ENSMUSG00000024653, ENSMUSG00000017697,



				ENSMUSG00000030525, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000021322, ENSMUSG00000016529, ENSMUSG00000000982, ENSMUSG00000004296, ENSMUSG00000015947, ENSMUSG00000026656, ENSMUSG00000024401, ENSMUSG00000025746, ENSMUSG00000025804, ENSMUSG00000027398, ENSMUSG00000079227, ENSMUSG00000030111, ENSMUSG00000031551, ENSMUSG00000026770, ENSMUSG00000025473			ENSMUSG00000026715, ENSMUSG00000024028, ENSMUSG00000031980, ENSMUSG00000022878, ENSMUSG00000010047
GO:0001817	regulation of cytokine production	6.87E-19	56	ENSMUSG00000027995, ENSMUSG00000029377, ENSMUSG00000049103, ENSMUSG00000018899, ENSMUSG00000051439, ENSMUSG00000074115, ENSMUSG00000016529, ENSMUSG00000035385, ENSMUSG00000032691, ENSMUSG00000018930, ENSMUSG00000029915, ENSMUSG00000028874, ENSMUSG00000030365, ENSMUSG00000040296, ENSMUSG00000027398, ENSMUSG00000051498, ENSMUSG00000044811, ENSMUSG00000079227, ENSMUSG00000031551, ENSMUSG00000030921, ENSMUSG00000025473, ENSMUSG00000044701, ENSMUSG00000030142, ENSMUSG00000055170, ENSMUSG00000028602, ENSMUSG00000045322, ENSMUSG00000022548, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000058715, ENSMUSG00000071552, ENSMUSG00000030149, ENSMUSG00000030525, ENSMUSG00000040552,	1	12	ENSMUSG00000031380, ENSMUSG00000031495, ENSMUSG00000024653, ENSMUSG00000043496, ENSMUSG00000032083, ENSMUSG00000062778, ENSMUSG00000026874, ENSMUSG00000033208, ENSMUSG00000022878, ENSMUSG00000032076, ENSMUSG00000010047, ENSMUSG00000024526

				<p>ENSMUSG00000026573, ENSMUSG00000000982,  ENSMUSG00000004296, ENSMUSG00000000791,  ENSMUSG00000053175, ENSMUSG00000025498,  ENSMUSG00000026656, ENSMUSG00000050241,  ENSMUSG00000029371, ENSMUSG00000029075,  ENSMUSG00000041515, ENSMUSG00000030793,  ENSMUSG00000044827, ENSMUSG00000030124,  ENSMUSG00000024401, ENSMUSG00000048806,  ENSMUSG00000044583, ENSMUSG00000042345,  ENSMUSG00000025746, ENSMUSG00000078817,  ENSMUSG00000026177, ENSMUSG00000037872</p>			
GO:0022402	cell cycle process	5.12E-15	71	<p>ENSMUSG00000017716, ENSMUSG00000015880,  ENSMUSG0000007080, ENSMUSG00000050107,  ENSMUSG00000045273, ENSMUSG00000027699,  ENSMUSG00000024989, ENSMUSG00000068744,  ENSMUSG00000019942, ENSMUSG00000006398,  ENSMUSG00000020255, ENSMUSG00000033644,  ENSMUSG00000027379, ENSMUSG00000027331,  ENSMUSG00000027715, ENSMUSG00000036912,  ENSMUSG00000026683, ENSMUSG00000026039,  ENSMUSG00000041431, ENSMUSG00000040084,  ENSMUSG00000027306, ENSMUSG00000037313,  ENSMUSG00000024795, ENSMUSG00000002307,  ENSMUSG00000078763, ENSMUSG00000048922,  ENSMUSG00000051378, ENSMUSG00000020897,  ENSMUSG00000017499, ENSMUSG00000071350,</p>	1	12	<p>ENSMUSG00000022996, ENSMUSG00000062380,  ENSMUSG00000031176, ENSMUSG00000036782,  ENSMUSG00000066357, ENSMUSG00000007815,  ENSMUSG00000042903, ENSMUSG00000025862,  ENSMUSG00000044820, ENSMUSG00000001403,  ENSMUSG00000071470, ENSMUSG00000046240</p>

				ENSMUSG00000037544, ENSMUSG00000028678, ENSMUSG00000030867, ENSMUSG00000012443, ENSMUSG00000028068, ENSMUSG00000074476, ENSMUSG00000058290, ENSMUSG00000033952, ENSMUSG00000027496, ENSMUSG00000024791, ENSMUSG00000029377, ENSMUSG00000026605, ENSMUSG00000045328, ENSMUSG00000028873, ENSMUSG00000031004, ENSMUSG00000017146, ENSMUSG00000024056, ENSMUSG00000027469, ENSMUSG00000037725, ENSMUSG00000037628, ENSMUSG00000029414, ENSMUSG00000041324, ENSMUSG00000044201, ENSMUSG00000024014, ENSMUSG00000055170, ENSMUSG00000050957, ENSMUSG00000023505, ENSMUSG00000039748, ENSMUSG00000036223, ENSMUSG00000023015, ENSMUSG00000004296, ENSMUSG00000025001, ENSMUSG00000069910, ENSMUSG00000031898, ENSMUSG00000020415, ENSMUSG00000036986, ENSMUSG00000017861, ENSMUSG00000072082, ENSMUSG00000023940, ENSMUSG00000026779, ENSMUSG00000032218			
GO:0002282	microglial cell activation involved in immune response	0.00907611	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	
GO:0007049	cell cycle	1.80E-12	83	ENSMUSG00000017716, ENSMUSG00000015880, ENSMUSG00000022034, ENSMUSG00000007080,	1	21	ENSMUSG00000062380, ENSMUSG00000035486, ENSMUSG00000066357, ENSMUSG00000007815,

			ENSMUSG00000050107, ENSMUSG00000045273, ENSMUSG00000027699, ENSMUSG00000024989, ENSMUSG00000020185, ENSMUSG00000068744, ENSMUSG00000019942, ENSMUSG00000006398, ENSMUSG00000002055, ENSMUSG00000033644, ENSMUSG00000027379, ENSMUSG00000046591, ENSMUSG00000027331, ENSMUSG00000027715, ENSMUSG00000036912, ENSMUSG00000042489, ENSMUSG00000026683, ENSMUSG00000001228, ENSMUSG00000026039, ENSMUSG00000041431, ENSMUSG00000040084, ENSMUSG00000027306, ENSMUSG00000037313, ENSMUSG00000024795, ENSMUSG00000002307, ENSMUSG00000078763, ENSMUSG00000048922, ENSMUSG00000051378, ENSMUSG00000002068, ENSMUSG00000020897, ENSMUSG00000017499, ENSMUSG00000071350, ENSMUSG00000037544, ENSMUSG00000028678, ENSMUSG00000030867, ENSMUSG00000012443, ENSMUSG00000028068, ENSMUSG00000074476, ENSMUSG00000058290, ENSMUSG00000033952, ENSMUSG00000027496, ENSMUSG00000024791, ENSMUSG00000029377, ENSMUSG00000026605, ENSMUSG00000074651, ENSMUSG00000005410, ENSMUSG00000026646, ENSMUSG00000045328, ENSMUSG00000028873, ENSMUSG00000031004, ENSMUSG00000017146, ENSMUSG00000024056,		ENSMUSG00000044820, ENSMUSG00000032010, ENSMUSG00000031292, ENSMUSG00000042750, ENSMUSG00000020990, ENSMUSG00000034563, ENSMUSG00000022996, ENSMUSG00000025812, ENSMUSG00000036782, ENSMUSG00000031176, ENSMUSG00000032064, ENSMUSG00000042903, ENSMUSG00000025862, ENSMUSG00000046550, ENSMUSG00000001403, ENSMUSG00000046240, ENSMUSG00000071470
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				ENSMUSG00000037725, ENSMUSG00000027469, ENSMUSG00000037628, ENSMUSG00000035683, ENSMUSG00000029414, ENSMUSG00000041324, ENSMUSG00000044201, ENSMUSG00000024014, ENSMUSG00000055170, ENSMUSG00000050957, ENSMUSG00000023505, ENSMUSG00000039748, ENSMUSG00000036223, ENSMUSG0000004296, ENSMUSG00000023015, ENSMUSG00000069910, ENSMUSG00000025001, ENSMUSG00000046179, ENSMUSG00000031898, ENSMUSG00000038943, ENSMUSG00000020415, ENSMUSG00000036986, ENSMUSG00000017861, ENSMUSG00000072082, ENSMUSG00000023940, ENSMUSG00000026779, ENSMUSG00000032218			
GO:0016064	immunoglobulin mediated immune response	2.17E-05	15	ENSMUSG00000025498, ENSMUSG00000026656, ENSMUSG00000036905, ENSMUSG00000036887, ENSMUSG00000055994, ENSMUSG00000092005, ENSMUSG00000039748, ENSMUSG00000058715, ENSMUSG00000026573, ENSMUSG00000040627, ENSMUSG00000024371, ENSMUSG00000076612, ENSMUSG00000055172, ENSMUSG00000053175, ENSMUSG00000015947	1	0	
GO:0065008	regulation of biological quality	1	86	ENSMUSG00000024112, ENSMUSG00000027995, ENSMUSG00000049103, ENSMUSG00000006398, ENSMUSG00000050232, ENSMUSG00000022831, ENSMUSG00000020848, ENSMUSG00000018930,	2.96E-07	129	ENSMUSG00000020123, ENSMUSG00000030302, ENSMUSG00000032547, ENSMUSG00000025889, ENSMUSG00000062515, ENSMUSG00000070570, ENSMUSG00000023328, ENSMUSG00000032511,

			ENSMUSG0000000817, ENSMUSG00000025804, ENSMUSG00000020053, ENSMUSG00000051498, ENSMUSG00000020651, ENSMUSG00000000182, ENSMUSG00000037321, ENSMUSG00000026770, ENSMUSG00000026683, ENSMUSG00000045322, ENSMUSG00000027219, ENSMUSG00000002992, ENSMUSG00000055994, ENSMUSG00000030525, ENSMUSG00000040552, ENSMUSG00000035373, ENSMUSG00000038357, ENSMUSG00000037313, ENSMUSG00000000982, ENSMUSG00000001131, ENSMUSG00000003283, ENSMUSG00000078236, ENSMUSG00000022094, ENSMUSG00000030867, ENSMUSG00000028068, ENSMUSG00000038418, ENSMUSG00000022587, ENSMUSG00000058818, ENSMUSG00000044583, ENSMUSG00000029380, ENSMUSG00000033952, ENSMUSG00000021451, ENSMUSG00000027496, ENSMUSG00000038963, ENSMUSG00000029664, ENSMUSG00000040613, ENSMUSG00000038642, ENSMUSG00000026822, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000031762, ENSMUSG00000071005, ENSMUSG00000031444, ENSMUSG00000024330, ENSMUSG00000074115, ENSMUSG00000035385, ENSMUSG00000045328, ENSMUSG00000028874, ENSMUSG00000030365, ENSMUSG00000024056, ENSMUSG00000027398, ENSMUSG00000079227,			ENSMUSG00000026715, ENSMUSG00000001865, ENSMUSG00000090877, ENSMUSG00000020524, ENSMUSG00000039952, ENSMUSG00000090639, ENSMUSG00000030865, ENSMUSG00000033615, ENSMUSG00000061393, ENSMUSG00000071317, ENSMUSG00000021909, ENSMUSG00000039278, ENSMUSG00000031209, ENSMUSG00000026874, ENSMUSG00000033208, ENSMUSG00000073940, ENSMUSG00000027513, ENSMUSG00000031760, ENSMUSG00000032839, ENSMUSG00000017697, ENSMUSG00000057606, ENSMUSG00000029193, ENSMUSG00000037010, ENSMUSG00000022878, ENSMUSG00000024027, ENSMUSG00000043943, ENSMUSG00000059201, ENSMUSG00000027470, ENSMUSG00000044885, ENSMUSG00000041616, ENSMUSG00000091898, ENSMUSG00000048455, ENSMUSG00000028427, ENSMUSG00000032315, ENSMUSG00000052305, ENSMUSG00000000049, ENSMUSG00000044338, ENSMUSG00000050164, ENSMUSG00000022040, ENSMUSG00000023013, ENSMUSG00000024990, ENSMUSG00000092137, ENSMUSG00000029205, ENSMUSG00000032356, ENSMUSG00000032083, ENSMUSG00000038775, ENSMUSG00000049281, ENSMUSG00000015405, ENSMUSG00000031425, ENSMUSG00000033965, ENSMUSG00000028573, ENSMUSG00000059741,
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							ENSMUSG00000053093, ENSMUSG00000000889, ENSMUSG00000038239, ENSMUSG00000027887, ENSMUSG00000031144, ENSMUSG00000032081, ENSMUSG00000045103, ENSMUSG00000069441, ENSMUSG00000024653, ENSMUSG00000030747, ENSMUSG00000058914, ENSMUSG00000028167, ENSMUSG00000056978, ENSMUSG00000022206, ENSMUSG00000037624, ENSMUSG00000020532, ENSMUSG00000010047
GO:0045321	leukocyte activation	2.12E-12	47	ENSMUSG00000060802, ENSMUSG00000040528, ENSMUSG00000074148, ENSMUSG00000027995, ENSMUSG00000035673, ENSMUSG00000071005, ENSMUSG00000071068, ENSMUSG00000018899, ENSMUSG00000053977, ENSMUSG00000028072, ENSMUSG00000062007, ENSMUSG00000030786, ENSMUSG00000034652, ENSMUSG00000051498, ENSMUSG00000059089, ENSMUSG00000028362, ENSMUSG00000055170, ENSMUSG00000068227, ENSMUSG00000045322, ENSMUSG00000027843, ENSMUSG0000001444, ENSMUSG00000040751, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000039748, ENSMUSG00000002699, ENSMUSG00000035186, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000030525, ENSMUSG00000026573, ENSMUSG00000040627, ENSMUSG00000000982, ENSMUSG00000004296,	1	4	ENSMUSG00000025889, ENSMUSG00000061311, ENSMUSG00000010047, ENSMUSG00000017697



				ENSMUSG00000053175, ENSMUSG00000025001, ENSMUSG00000022901, ENSMUSG00000050241, ENSMUSG00000029075, ENSMUSG00000044827, ENSMUSG00000034116, ENSMUSG00000038418, ENSMUSG00000058818, ENSMUSG00000044583, ENSMUSG00000025746, ENSMUSG00000049109, ENSMUSG00000026177			
GO:0032944	regulation of mononuclear cell proliferation	3.53E-06	24	ENSMUSG00000016496, ENSMUSG00000044701, ENSMUSG00000055170, ENSMUSG00000073412, ENSMUSG00000027843, ENSMUSG00000035042, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000016529, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000022901, ENSMUSG00000026656, ENSMUSG00000029075, ENSMUSG00000075122, ENSMUSG00000016498, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000024397, ENSMUSG00000025746, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000031551, ENSMUSG00000026770	1	4	ENSMUSG00000063632, ENSMUSG00000024653, ENSMUSG00000026532, ENSMUSG00000017697
GO:0042108	positive regulation of cytokine biosynthetic process	5.60E-05	14	ENSMUSG00000044701, ENSMUSG00000055170, ENSMUSG00000028602, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044827, ENSMUSG00000024401, ENSMUSG00000029377, ENSMUSG00000044583, ENSMUSG00000049103, ENSMUSG00000051498, ENSMUSG00000027398, ENSMUSG00000018899, ENSMUSG00000053175	1	0	

GO:0002824	positive regulation of adaptive immune response based on somatic recombination of immune receptors built from immunoglobulin superfamily domains	4.88E-07	16	ENSMUSG00000060802, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000026573, ENSMUSG00000061232, ENSMUSG00000049103, ENSMUSG0000004296, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000073411, ENSMUSG00000024401, ENSMUSG00000024339, ENSMUSG00000030895, ENSMUSG00000037321, ENSMUSG00000026177, ENSMUSG00000067212	1	2	ENSMUSG00000090877, ENSMUSG00000017697
GO:0032760	positive regulation of tumor necrosis factor production	0.00040323 5	10	ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000018930, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000051439, ENSMUSG0000004296, ENSMUSG00000079227, ENSMUSG00000000982	1	0	
GO:0071345	cellular response to cytokine stimulus	5.00E-25	51	ENSMUSG00000078922, ENSMUSG00000029377, ENSMUSG00000066861, ENSMUSG00000029298, ENSMUSG00000043263, ENSMUSG00000049103, ENSMUSG00000018899, ENSMUSG00000035385, ENSMUSG00000078853, ENSMUSG00000026073, ENSMUSG00000054203, ENSMUSG00000073489, ENSMUSG00000037860, ENSMUSG00000039997, ENSMUSG00000040253, ENSMUSG00000026535, ENSMUSG00000025804, ENSMUSG00000040264, ENSMUSG00000027398, ENSMUSG00000045932, ENSMUSG00000054072, ENSMUSG00000034459, ENSMUSG00000026770, ENSMUSG00000055170, ENSMUSG00000038037, ENSMUSG00000068227,	1	10	ENSMUSG00000031134, ENSMUSG00000042812, ENSMUSG0000006235, ENSMUSG00000059201, ENSMUSG00000031760, ENSMUSG00000024028, ENSMUSG00000010051, ENSMUSG00000027820, ENSMUSG00000022878, ENSMUSG00000010047

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GO:0022610	biological adhesion	1	34	<p>ENSMUSG00000022026, ENSMUSG00000048534,  ENSMUSG00000029298, ENSMUSG00000033880,  ENSMUSG00000017146, ENSMUSG00000047230,  ENSMUSG00000030786, ENSMUSG00000028217,  ENSMUSG00000040253, ENSMUSG00000004707,  ENSMUSG00000001123, ENSMUSG00000027398,  ENSMUSG00000029816, ENSMUSG00000025473,  ENSMUSG00000028269, ENSMUSG00000027322,  ENSMUSG00000079362, ENSMUSG00000035042,  ENSMUSG00000053475, ENSMUSG00000035493,  ENSMUSG00000032322, ENSMUSG00000030077,  ENSMUSG00000028270, ENSMUSG00000029304,  ENSMUSG00000020310, ENSMUSG00000030474,</p>	0.000294432	53	<p>ENSMUSG00000039013, ENSMUSG00000025810,  ENSMUSG00000033327, ENSMUSG00000032452,  ENSMUSG00000074505, ENSMUSG00000022491,  ENSMUSG00000052911, ENSMUSG00000023328,  ENSMUSG00000008153, ENSMUSG00000057454,  ENSMUSG00000061928, ENSMUSG00000031881,  ENSMUSG00000031841, ENSMUSG00000059898,  ENSMUSG00000039952, ENSMUSG00000043719,  ENSMUSG00000071317, ENSMUSG00000006457,  ENSMUSG00000052698, ENSMUSG00000032332,  ENSMUSG00000030607, ENSMUSG00000042451,  ENSMUSG00000031253, ENSMUSG00000001300,  ENSMUSG00000035776, ENSMUSG00000026413,</p>

				ENSMUSG00000032783, ENSMUSG00000037440, ENSMUSG00000026582, ENSMUSG00000079597, ENSMUSG00000028268, ENSMUSG00000024401, ENSMUSG00000026580, ENSMUSG00000021451			ENSMUSG00000017697, ENSMUSG00000036867, ENSMUSG00000044322, ENSMUSG00000046240, ENSMUSG00000047216, ENSMUSG00000038119, ENSMUSG00000032076, ENSMUSG00000091345, ENSMUSG00000042812, ENSMUSG00000004892, ENSMUSG00000059201, ENSMUSG00000019326, ENSMUSG00000032570, ENSMUSG00000001946, ENSMUSG00000056632, ENSMUSG00000007815, ENSMUSG00000035459, ENSMUSG00000059327, ENSMUSG00000025812, ENSMUSG00000030606, ENSMUSG00000069441, ENSMUSG00000048758, ENSMUSG00000031377, ENSMUSG00000031355, ENSMUSG00000052374, ENSMUSG00000031980, ENSMUSG00000034774
GO:0031343	positive regulation of cell killing	1.08E-07	14	ENSMUSG00000073411, ENSMUSG00000005696, ENSMUSG00000055170, ENSMUSG00000060802, ENSMUSG00000050241, ENSMUSG00000030124, ENSMUSG00000030149, ENSMUSG00000024339, ENSMUSG00000026573, ENSMUSG00000061232, ENSMUSG00000079227, ENSMUSG00000004296, ENSMUSG00000037321, ENSMUSG00000067212	1	2	ENSMUSG00000090877, ENSMUSG00000032076
GO:0009605	response to external stimulus	0.00103419 1	51	ENSMUSG00000024079, ENSMUSG00000027995, ENSMUSG00000035352, ENSMUSG00000048534, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000071005, ENSMUSG00000009185, ENSMUSG00000029811, ENSMUSG00000049103,	1	28	ENSMUSG00000031380, ENSMUSG00000009471, ENSMUSG00000030302, ENSMUSG00000042812, ENSMUSG00000025810, ENSMUSG00000032547, ENSMUSG00000029368, ENSMUSG00000059201, ENSMUSG00000062380, ENSMUSG00000051596,

				<p>ENSMUSG00000079563, ENSMUSG00000074115,  ENSMUSG00000027199, ENSMUSG00000035385,  ENSMUSG00000017724, ENSMUSG00000050232,  ENSMUSG00000026166, ENSMUSG00000028072,  ENSMUSG00000030413, ENSMUSG00000024842,  ENSMUSG00000018930, ENSMUSG00000030786,  ENSMUSG00000026222, ENSMUSG00000040296,  ENSMUSG00000000247, ENSMUSG00000025804,  ENSMUSG00000027398, ENSMUSG00000051498,  ENSMUSG00000034855, ENSMUSG00000025473,  ENSMUSG00000029005, ENSMUSG00000055170,  ENSMUSG00000018920, ENSMUSG00000026104,  ENSMUSG00000055994, ENSMUSG00000035042,  ENSMUSG00000056529, ENSMUSG00000058715,  ENSMUSG00000070691, ENSMUSG00000030525,  ENSMUSG00000040552, ENSMUSG00000026573,  ENSMUSG00000030077, ENSMUSG00000035373,  ENSMUSG00000000982, ENSMUSG00000029304,  ENSMUSG00000044827, ENSMUSG00000023078,  ENSMUSG00000037868, ENSMUSG00000029380,  ENSMUSG00000079700</p>			<p>ENSMUSG00000052911, ENSMUSG00000024039,  ENSMUSG00000026715, ENSMUSG00000020884,  ENSMUSG00000046402, ENSMUSG00000041012,  ENSMUSG00000031844, ENSMUSG00000041688,  ENSMUSG00000026874, ENSMUSG00000023013,  ENSMUSG00000024990, ENSMUSG00000029205,  ENSMUSG00000031780, ENSMUSG00000023235,  ENSMUSG00000029193, ENSMUSG00000060180,  ENSMUSG00000073465, ENSMUSG00000040412</p>
GO:0042116	macrophage activation	0.00406468 9	8	<p>ENSMUSG00000027995, ENSMUSG00000045322,  ENSMUSG00000044827, ENSMUSG00000055994,  ENSMUSG00000035673, ENSMUSG00000044583,  ENSMUSG00000051498, ENSMUSG00000026177</p>	1	0	
GO:0042180	cellular ketone metabolic	1	13	<p>ENSMUSG00000030268, ENSMUSG00000038963,</p>	0.00032696	55	<p>ENSMUSG00000037686, ENSMUSG00000032263,</p>

process

ENSMUSG0000003484, ENSMUSG00000037440,  
ENSMUSG00000017146, ENSMUSG00000039519,  
ENSMUSG00000050370, ENSMUSG00000021266,  
ENSMUSG00000018907, ENSMUSG00000027199,  
ENSMUSG00000022126, ENSMUSG00000031551,  
ENSMUSG00000020010

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ENSMUSG00000025889, ENSMUSG00000062515,  
ENSMUSG00000020182, ENSMUSG00000046402,  
ENSMUSG00000002588, ENSMUSG00000002010,  
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ENSMUSG00000032418, ENSMUSG00000027513,  
ENSMUSG00000032807, ENSMUSG00000032279,  
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ENSMUSG00000000168, ENSMUSG00000031299,  
ENSMUSG00000025991, ENSMUSG00000032315,  
ENSMUSG00000027820, ENSMUSG00000090150,  
ENSMUSG00000022040, ENSMUSG00000075217,  
ENSMUSG00000028167, ENSMUSG00000031425,  
ENSMUSG00000024892, ENSMUSG00000029695,  
ENSMUSG00000041220, ENSMUSG00000035202,  
ENSMUSG00000050195, ENSMUSG00000020532,

							ENSMUSG00000027380
GO:0051240	positive regulation of multicellular organismal process	0.00024721 5	43	ENSMUSG00000027995, ENSMUSG00000029377, ENSMUSG00000049103, ENSMUSG00000051439, ENSMUSG00000035385, ENSMUSG00000032691, ENSMUSG00000019942, ENSMUSG00000028072, ENSMUSG00000018930, ENSMUSG00000040296, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000079227, ENSMUSG00000031551, ENSMUSG00000041324, ENSMUSG00000025473, ENSMUSG00000055170, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000058715, ENSMUSG00000071552, ENSMUSG00000030525, ENSMUSG00000030149, ENSMUSG00000040552, ENSMUSG00000041431, ENSMUSG00000026573, ENSMUSG00000000982, ENSMUSG00000029304, ENSMUSG0000004296, ENSMUSG00000053175, ENSMUSG00000000791, ENSMUSG00000025498, ENSMUSG00000050241, ENSMUSG00000041515, ENSMUSG00000030793, ENSMUSG00000045471, ENSMUSG00000024401, ENSMUSG00000021765, ENSMUSG00000024397, ENSMUSG00000025746, ENSMUSG00000044583, ENSMUSG00000026177	1	34	ENSMUSG00000031380, ENSMUSG00000020123, ENSMUSG00000030730, ENSMUSG00000029368, ENSMUSG00000032366, ENSMUSG00000025889, ENSMUSG00000032511, ENSMUSG00000029236, ENSMUSG00000020524, ENSMUSG00000090639, ENSMUSG00000032554, ENSMUSG00000061393, ENSMUSG00000026874, ENSMUSG00000039004, ENSMUSG00000033208, ENSMUSG00000022996, ENSMUSG00000031489, ENSMUSG00000017697, ENSMUSG00000063632, ENSMUSG00000036867, ENSMUSG00000029361, ENSMUSG00000037010, ENSMUSG00000024027, ENSMUSG00000022878, ENSMUSG00000022868, ENSMUSG00000027470, ENSMUSG00000027077, ENSMUSG00000025991, ENSMUSG00000000889, ENSMUSG00000000049, ENSMUSG00000062778, ENSMUSG00000049281, ENSMUSG00000059481, ENSMUSG00000031980
GO:0052255	modulation by organism of defense response of other organism involved in	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	

	sybiotic interaction						
GO:0032787	monocarboxylic acid metabolic process	1	7	ENSMUSG00000050370, ENSMUSG00000003484, ENSMUSG00000018907, ENSMUSG00000017146, ENSMUSG00000022126, ENSMUSG00000031551, ENSMUSG00000039519	0.001591895	33	ENSMUSG00000033327, ENSMUSG00000032262, ENSMUSG00000025889, ENSMUSG00000062515, ENSMUSG00000046402, ENSMUSG00000032310, ENSMUSG00000027513, ENSMUSG00000032807, ENSMUSG00000067653, ENSMUSG00000037071, ENSMUSG00000025153, ENSMUSG00000025202, ENSMUSG00000073424, ENSMUSG00000078597, ENSMUSG00000022878, ENSMUSG00000059201, ENSMUSG00000032349, ENSMUSG00000066072, ENSMUSG0000004885, ENSMUSG00000030972, ENSMUSG00000031299, ENSMUSG00000000168, ENSMUSG00000032315, ENSMUSG00000022040, ENSMUSG00000090150, ENSMUSG00000075217, ENSMUSG00000028167, ENSMUSG00000031425, ENSMUSG00000024892, ENSMUSG00000041220, ENSMUSG00000050195, ENSMUSG00000020532, ENSMUSG00000027380
GO:0007155	cell adhesion	1	28	ENSMUSG00000027322, ENSMUSG00000022026, ENSMUSG00000048534, ENSMUSG00000035493, ENSMUSG00000053475, ENSMUSG00000035042, ENSMUSG00000032322, ENSMUSG00000030077, ENSMUSG00000020310, ENSMUSG00000029304, ENSMUSG00000030474, ENSMUSG00000032783, ENSMUSG00000033880, ENSMUSG00000026582, ENSMUSG00000037440, ENSMUSG00000017146,	0.000215038	53	ENSMUSG00000039013, ENSMUSG00000025810, ENSMUSG00000033327, ENSMUSG00000032452, ENSMUSG00000074505, ENSMUSG00000022491, ENSMUSG00000052911, ENSMUSG00000023328, ENSMUSG00000008153, ENSMUSG00000057454, ENSMUSG00000061928, ENSMUSG00000031881, ENSMUSG00000031841, ENSMUSG00000059898, ENSMUSG00000039952, ENSMUSG00000043719,



				ENSMUSG00000047230, ENSMUSG00000030786, ENSMUSG00000079597, ENSMUSG00000024401, ENSMUSG00000028217, ENSMUSG00000004707, ENSMUSG00000026580, ENSMUSG00000001123, ENSMUSG00000027398, ENSMUSG00000029816, ENSMUSG00000021451, ENSMUSG00000025473			ENSMUSG00000071317, ENSMUSG00000006457, ENSMUSG00000052698, ENSMUSG00000032332, ENSMUSG00000030607, ENSMUSG00000042451, ENSMUSG00000031253, ENSMUSG00000001300, ENSMUSG00000035776, ENSMUSG00000026413, ENSMUSG00000017697, ENSMUSG00000036867, ENSMUSG00000044322, ENSMUSG00000046240, ENSMUSG00000047216, ENSMUSG00000038119, ENSMUSG00000032076, ENSMUSG00000091345, ENSMUSG00000042812, ENSMUSG00000004892, ENSMUSG00000059201, ENSMUSG00000019326, ENSMUSG00000032570, ENSMUSG00000001946, ENSMUSG00000056632, ENSMUSG00000007815, ENSMUSG00000035459, ENSMUSG00000059327, ENSMUSG00000025812, ENSMUSG00000030606, ENSMUSG00000069441, ENSMUSG00000048758, ENSMUSG00000031377, ENSMUSG00000031355, ENSMUSG00000052374, ENSMUSG00000031980, ENSMUSG00000034774
GO:0050921	positive regulation of chemotaxis	0.00378420 2	13	ENSMUSG00000023913, ENSMUSG00000023078, ENSMUSG00000018930, ENSMUSG00000035042, ENSMUSG00000071005, ENSMUSG00000024397, ENSMUSG00000026573, ENSMUSG00000040552, ENSMUSG00000035373, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000034855	1	3	ENSMUSG00000031380, ENSMUSG00000031841, ENSMUSG00000026874

GO:004419	interspecies interaction between organisms	8.84E-08	21	ENSMUSG00000027995, ENSMUSG00000028269, ENSMUSG00000045322, ENSMUSG00000079362, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000028270, ENSMUSG00000029298, ENSMUSG00000038357, ENSMUSG00000000982, ENSMUSG00000018930, ENSMUSG00000036986, ENSMUSG00000028268, ENSMUSG00000040253, ENSMUSG00000024339, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000037321, ENSMUSG00000079227, ENSMUSG00000027514, ENSMUSG00000034459	1	6	ENSMUSG00000039952, ENSMUSG00000029368, ENSMUSG00000006235, ENSMUSG00000032216, ENSMUSG00000010047, ENSMUSG00000015405
GO:0002443	leukocyte mediated immunity	1.05E-08	23	ENSMUSG00000036905, ENSMUSG00000040528, ENSMUSG00000036887, ENSMUSG00000055994, ENSMUSG00000040751, ENSMUSG00000092005, ENSMUSG00000039748, ENSMUSG00000058715, ENSMUSG00000026573, ENSMUSG00000040627, ENSMUSG00000024371, ENSMUSG00000000982, ENSMUSG00000015437, ENSMUSG00000053977, ENSMUSG00000076612, ENSMUSG00000055172, ENSMUSG00000053175, ENSMUSG00000015947, ENSMUSG00000025498, ENSMUSG00000026656, ENSMUSG00000058818, ENSMUSG00000034652, ENSMUSG00000026177	1	2	ENSMUSG00000000889, ENSMUSG00000026874
GO:0002758	innate immune response-activating signal transduction	0.00076508 8	10	ENSMUSG00000027995, ENSMUSG00000050241, ENSMUSG00000045322, ENSMUSG00000030413, ENSMUSG00000055994, ENSMUSG00000030149,	1	0	

				ENSMUSG00000044583, ENSMUSG000000051498, ENSMUSG000000025473, ENSMUSG000000022901			
GO:0044281	small molecule metabolic process	1	42	ENSMUSG000000038963, ENSMUSG000000040613, ENSMUSG000000026628, ENSMUSG000000003484, ENSMUSG000000066861, ENSMUSG000000005667, ENSMUSG000000021266, ENSMUSG000000018907, ENSMUSG000000074115, ENSMUSG000000027199, ENSMUSG000000025877, ENSMUSG000000030268, ENSMUSG000000020638, ENSMUSG000000020684, ENSMUSG000000017146, ENSMUSG000000019845, ENSMUSG000000040296, ENSMUSG000000029366, ENSMUSG000000040264, ENSMUSG000000070327, ENSMUSG000000000182, ENSMUSG000000023045, ENSMUSG000000037321, ENSMUSG0000000031551, ENSMUSG000000022548, ENSMUSG000000034329, ENSMUSG000000040627, ENSMUSG000000056494, ENSMUSG000000024795, ENSMUSG000000032690, ENSMUSG000000021983, ENSMUSG000000037440, ENSMUSG000000039519, ENSMUSG000000024401, ENSMUSG000000050370, ENSMUSG000000024339, ENSMUSG000000022587, ENSMUSG000000020649, ENSMUSG000000040658, ENSMUSG000000022126, ENSMUSG000000020010, ENSMUSG000000041064	0.000217949	108	ENSMUSG000000037686, ENSMUSG000000030302, ENSMUSG000000032263, ENSMUSG000000033327, ENSMUSG000000032262, ENSMUSG000000025889, ENSMUSG000000062515, ENSMUSG000000023328, ENSMUSG000000020182, ENSMUSG00000002588, ENSMUSG00000002010, ENSMUSG000000013418, ENSMUSG00000004038, ENSMUSG000000032310, ENSMUSG000000032418, ENSMUSG000000033350, ENSMUSG000000027513, ENSMUSG000000031760, ENSMUSG000000032279, ENSMUSG000000025150, ENSMUSG000000027401, ENSMUSG000000074183, ENSMUSG000000037071, ENSMUSG000000017697, ENSMUSG000000041696, ENSMUSG000000060579, ENSMUSG000000016239, ENSMUSG000000032348, ENSMUSG000000038967, ENSMUSG000000022878, ENSMUSG000000078597, ENSMUSG000000030399, ENSMUSG000000059201, ENSMUSG000000019359, ENSMUSG000000066072, ENSMUSG000000023019, ENSMUSG000000062380, ENSMUSG000000004885, ENSMUSG000000040181, ENSMUSG000000030972, ENSMUSG000000041616, ENSMUSG000000041624, ENSMUSG000000032908, ENSMUSG000000058135, ENSMUSG000000059412, ENSMUSG000000032315, ENSMUSG000000000049, ENSMUSG000000027820,

						ENSMUSG00000022040, ENSMUSG00000025271, ENSMUSG00000024990, ENSMUSG00000032083, ENSMUSG00000075217, ENSMUSG00000031425, ENSMUSG00000024892, ENSMUSG00000050195, ENSMUSG00000041653, ENSMUSG00000025175, ENSMUSG00000027380, ENSMUSG00000030730, ENSMUSG00000046402, ENSMUSG00000029735, ENSMUSG00000024534, ENSMUSG00000038216, ENSMUSG00000025037, ENSMUSG00000031996, ENSMUSG00000036813, ENSMUSG00000037347, ENSMUSG00000032807, ENSMUSG00000067653, ENSMUSG00000019278, ENSMUSG00000032060, ENSMUSG00000028773, ENSMUSG00000029019, ENSMUSG00000029361, ENSMUSG00000022519, ENSMUSG00000025153, ENSMUSG00000025202, ENSMUSG00000073465, ENSMUSG00000057880, ENSMUSG00000002769, ENSMUSG00000073424, ENSMUSG00000040752, ENSMUSG00000032349, ENSMUSG00000032570, ENSMUSG00000021622, ENSMUSG00000024039, ENSMUSG00000000168, ENSMUSG00000031299, ENSMUSG00000025991, ENSMUSG00000025815, ENSMUSG00000053093, ENSMUSG00000000889, ENSMUSG00000027559, ENSMUSG00000019478, ENSMUSG00000090150, ENSMUSG00000032081, ENSMUSG00000035540, ENSMUSG00000030747, ENSMUSG00000028167,
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GO:0055008	cardiac muscle tissue morphogenesis	1	0		0.000117943	13	ENSMUSG00000035458, ENSMUSG00000032366, ENSMUSG00000027470, ENSMUSG00000046714, ENSMUSG00000059741, ENSMUSG00000091898, ENSMUSG00000053093, ENSMUSG00000006235, ENSMUSG00000026418, ENSMUSG00000007877, ENSMUSG00000021909, ENSMUSG00000040289, ENSMUSG00000040752
GO:2000501	regulation of natural killer cell chemotaxis	6.72E-06	6	ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000018930, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000035042	1	0	
GO:0016045	detection of bacterium	0.00509985 9	6	ENSMUSG00000027995, ENSMUSG00000044827, ENSMUSG00000030413, ENSMUSG00000079563, ENSMUSG00000051498, ENSMUSG00000055994	1	0	
GO:0050707	regulation of cytokine secretion	1.81E-07	18	ENSMUSG00000030142, ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000055994, ENSMUSG00000051439, ENSMUSG00000074115, ENSMUSG00000016529, ENSMUSG00000000982, ENSMUSG00000032691, ENSMUSG00000030793, ENSMUSG00000029075, ENSMUSG00000028874, ENSMUSG00000029915, ENSMUSG00000024401, ENSMUSG00000025746, ENSMUSG00000044811, ENSMUSG00000078817, ENSMUSG00000079227	1	7	ENSMUSG00000031495, ENSMUSG00000032083, ENSMUSG00000026874, ENSMUSG00000032076, ENSMUSG00000062778, ENSMUSG00000010047, ENSMUSG00000024526

GO:0006941	striated muscle contraction	1	0		1.17E-10	17	ENSMUSG00000064179, ENSMUSG00000035458, ENSMUSG00000032366, ENSMUSG00000027470, ENSMUSG00000091898, ENSMUSG00000021909, ENSMUSG00000061816, ENSMUSG00000017300, ENSMUSG00000061723, ENSMUSG00000031097, ENSMUSG00000061086, ENSMUSG00000020216, ENSMUSG00000020623, ENSMUSG00000059741, ENSMUSG00000029361, ENSMUSG00000040752, ENSMUSG00000020475
GO:0050670	regulation of lymphocyte proliferation	3.06E-06	24	ENSMUSG00000016496, ENSMUSG00000044701, ENSMUSG00000055170, ENSMUSG00000073412, ENSMUSG00000027843, ENSMUSG00000035042, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000016529, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000022901, ENSMUSG00000026656, ENSMUSG00000029075, ENSMUSG00000075122, ENSMUSG00000016498, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000024397, ENSMUSG00000025746, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000031551, ENSMUSG00000026770	1	4	ENSMUSG00000063632, ENSMUSG00000024653, ENSMUSG00000026532, ENSMUSG00000017697
GO:0003229	ventricular cardiac muscle tissue development	1	0		0.000673126	11	ENSMUSG00000035458, ENSMUSG00000032366, ENSMUSG00000046714, ENSMUSG00000059741, ENSMUSG00000091898, ENSMUSG00000053093, ENSMUSG00000006235, ENSMUSG00000026418, ENSMUSG00000021909, ENSMUSG00000040289,

							ENSMUSG00000040752
GO:0050900	leukocyte migration	4.87E-14	28	ENSMUSG00000055170, ENSMUSG00000035352, ENSMUSG00000048534, ENSMUSG00000001444, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000035042, ENSMUSG00000071005, ENSMUSG00000058715, ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000049103, ENSMUSG00000074115, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000020310, ENSMUSG00000029304, ENSMUSG00000050232, ENSMUSG00000023078, ENSMUSG00000026582, ENSMUSG00000018930, ENSMUSG00000030786, ENSMUSG00000024401, ENSMUSG00000026580, ENSMUSG00000025804, ENSMUSG00000027398, ENSMUSG00000029380, ENSMUSG00000025473	1	6	ENSMUSG00000059481, ENSMUSG00000059201, ENSMUSG00000023235, ENSMUSG00000019326, ENSMUSG00000000889, ENSMUSG00000026874
GO:0051336	regulation of hydrolase activity	0.31966791 6	52	ENSMUSG00000017716, ENSMUSG00000074148, ENSMUSG00000029664, ENSMUSG00000066363, ENSMUSG00000021403, ENSMUSG00000041481, ENSMUSG00000027699, ENSMUSG00000066861, ENSMUSG00000068129, ENSMUSG00000032691, ENSMUSG00000023132, ENSMUSG00000028072, ENSMUSG00000000817, ENSMUSG00000004952, ENSMUSG00000058207, ENSMUSG00000061947, ENSMUSG00000025129, ENSMUSG00000020053, ENSMUSG00000066364, ENSMUSG00000021091, ENSMUSG00000049608, ENSMUSG00000034459,	0.002991948	61	ENSMUSG00000001995, ENSMUSG00000032366, ENSMUSG00000025889, ENSMUSG00000024500, ENSMUSG00000054422, ENSMUSG00000026715, ENSMUSG00000090877, ENSMUSG00000037188, ENSMUSG00000071317, ENSMUSG00000021909, ENSMUSG00000041688, ENSMUSG00000039278, ENSMUSG00000061311, ENSMUSG00000026874, ENSMUSG00000059495, ENSMUSG00000023336, ENSMUSG00000061086, ENSMUSG00000031760, ENSMUSG00000028356, ENSMUSG00000030359, ENSMUSG00000058260, ENSMUSG00000019278,

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GO:2000242	negative regulation of reproductive process	0.00821070 2	10	ENSMUSG00000032661, ENSMUSG00000018930, ENSMUSG00000022838, ENSMUSG00000035042, ENSMUSG00000024401, ENSMUSG00000026222, ENSMUSG00000048806, ENSMUSG00000066861, ENSMUSG0000000982, ENSMUSG00000034459	1	0	
GO:0048644	muscle organ morphogenesis	1	2	ENSMUSG00000022587, ENSMUSG00000034394	0.000576534	14	ENSMUSG00000035458, ENSMUSG00000032366,



							ENSMUSG00000027470, ENSMUSG00000027077, ENSMUSG00000046714, ENSMUSG00000059741, ENSMUSG00000091898, ENSMUSG00000053093, ENSMUSG00000006235, ENSMUSG00000026418, ENSMUSG00000007877, ENSMUSG00000021909, ENSMUSG00000040289, ENSMUSG00000040752
GO:0050714	positive regulation of protein secretion	9.62E-06	17	ENSMUSG00000030142, ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000055994, ENSMUSG00000051439, ENSMUSG00000074115, ENSMUSG00000016529, ENSMUSG00000000982, ENSMUSG00000032691, ENSMUSG00000030793, ENSMUSG00000029075, ENSMUSG00000028874, ENSMUSG00000029915, ENSMUSG00000024401, ENSMUSG00000025746, ENSMUSG00000044811, ENSMUSG00000079227	1	7	ENSMUSG00000024990, ENSMUSG00000034584, ENSMUSG00000031495, ENSMUSG00000026874, ENSMUSG00000032076, ENSMUSG00000062778, ENSMUSG00000010047
GO:0002682	regulation of immune system process	1.86E-34	104	ENSMUSG00000036931, ENSMUSG00000060802, ENSMUSG00000027995, ENSMUSG00000073412, ENSMUSG00000036887, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000016529, ENSMUSG00000018930, ENSMUSG00000022906, ENSMUSG00000036896, ENSMUSG00000040296, ENSMUSG00000025804, ENSMUSG00000020053, ENSMUSG00000034652, ENSMUSG00000030895, ENSMUSG00000051498, ENSMUSG00000037321, ENSMUSG00000034855, ENSMUSG00000031551, ENSMUSG00000030921, ENSMUSG00000026770,	1	21	ENSMUSG00000031380, ENSMUSG00000042812, ENSMUSG00000059201, ENSMUSG00000025889, ENSMUSG00000019326, ENSMUSG00000061780, ENSMUSG00000090877, ENSMUSG00000046402, ENSMUSG00000024028, ENSMUSG00000026874, ENSMUSG00000020889, ENSMUSG00000024990, ENSMUSG00000024653, ENSMUSG00000043496, ENSMUSG00000032083, ENSMUSG00000017697, ENSMUSG00000063632, ENSMUSG00000046834, ENSMUSG00000022878, ENSMUSG00000032076, ENSMUSG00000026532

				ENSMUSG00000025473, ENSMUSG00000005696, ENSMUSG00000044701, ENSMUSG00000045322, ENSMUSG00000001444, ENSMUSG000000055994, ENSMUSG00000022548, ENSMUSG000000040751, ENSMUSG00000024353, ENSMUSG00000030149, ENSMUSG00000040552, ENSMUSG00000035373, ENSMUSG00000024371, ENSMUSG00000000982, ENSMUSG00000055172, ENSMUSG00000026656, ENSMUSG00000023913, ENSMUSG00000050241, ENSMUSG00000029075, ENSMUSG00000030124, ENSMUSG00000026582, ENSMUSG00000079620, ENSMUSG00000016498, ENSMUSG00000024397, ENSMUSG00000022876, ENSMUSG00000048806, ENSMUSG00000042345, ENSMUSG00000044583, ENSMUSG00000074151, ENSMUSG00000074148, ENSMUSG00000040528, ENSMUSG00000036905, ENSMUSG00000071005, ENSMUSG00000029377, ENSMUSG00000024696, ENSMUSG00000073406, ENSMUSG00000038179, ENSMUSG00000035385, ENSMUSG00000053063, ENSMUSG00000073411, ENSMUSG00000030413, ENSMUSG00000075122, ENSMUSG00000028874, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000027398, ENSMUSG00000027639, ENSMUSG00000049608, ENSMUSG00000034459, ENSMUSG00000041324, ENSMUSG00000067212, ENSMUSG00000016496,			
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				ENSMUSG00000055170, ENSMUSG00000027843, ENSMUSG00000092005, ENSMUSG00000035042, ENSMUSG00000058715, ENSMUSG00000071552, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000004296, ENSMUSG00000020310, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000022901, ENSMUSG00000029371, ENSMUSG00000023078, ENSMUSG00000037440, ENSMUSG00000034394, ENSMUSG00000079298, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000074622, ENSMUSG00000090231, ENSMUSG00000026580, ENSMUSG00000024339, ENSMUSG00000025746, ENSMUSG00000041347, ENSMUSG00000030111, ENSMUSG00000042726, ENSMUSG00000049109, ENSMUSG00000026177			
GO:0042330	taxis	4.55E-07	37	ENSMUSG00000035352, ENSMUSG00000048534, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000071005, ENSMUSG00000009185, ENSMUSG00000049103, ENSMUSG00000074115, ENSMUSG00000035385, ENSMUSG00000017724, ENSMUSG00000050232, ENSMUSG00000026166, ENSMUSG00000028072, ENSMUSG00000018930, ENSMUSG00000030786, ENSMUSG00000000247, ENSMUSG00000025804, ENSMUSG00000027398, ENSMUSG00000034855, ENSMUSG00000025473, ENSMUSG00000029005, ENSMUSG00000018920,	1	10	ENSMUSG00000031380, ENSMUSG00000025810, ENSMUSG00000032547, ENSMUSG00000062380, ENSMUSG00000052911, ENSMUSG00000031780, ENSMUSG00000041012, ENSMUSG00000023235, ENSMUSG00000026874, ENSMUSG00000041688

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GO:0003015	heart process	1	0		0.006612069	9	ENSMUSG00000035458, ENSMUSG00000061086, ENSMUSG00000032366, ENSMUSG00000049281, ENSMUSG00000020623, ENSMUSG00000059741, ENSMUSG00000091898, ENSMUSG00000021909, ENSMUSG00000061816
GO:0051301	cell division	7.66E-13	51	ENSMUSG00000017716, ENSMUSG00000024791, ENSMUSG00000045273, ENSMUSG00000027699, ENSMUSG00000024989, ENSMUSG00000005410, ENSMUSG00000068744, ENSMUSG00000019942, ENSMUSG00000045328, ENSMUSG00000006398, ENSMUSG00000028873, ENSMUSG00000002055, ENSMUSG00000027379, ENSMUSG00000024056, ENSMUSG00000037725, ENSMUSG00000027469, ENSMUSG00000027331, ENSMUSG00000027715, ENSMUSG00000029414, ENSMUSG00000044201, ENSMUSG00000026683, ENSMUSG00000023505, ENSMUSG00000032322, ENSMUSG00000026039, ENSMUSG00000041431, ENSMUSG00000040084,	1	8	ENSMUSG00000025812, ENSMUSG00000031176, ENSMUSG00000036782, ENSMUSG00000035486, ENSMUSG00000032064, ENSMUSG00000025862, ENSMUSG00000007815, ENSMUSG00000001403

				ENSMUSG00000036223, ENSMUSG00000027306, ENSMUSG00000023015, ENSMUSG00000024795, ENSMUSG00000002307, ENSMUSG00000069910, ENSMUSG00000025001, ENSMUSG00000048922, ENSMUSG00000051378, ENSMUSG00000002068, ENSMUSG00000020897, ENSMUSG00000038943, ENSMUSG00000017499, ENSMUSG00000071350, ENSMUSG00000020415, ENSMUSG00000028678, ENSMUSG00000012443, ENSMUSG00000030867, ENSMUSG00000074476, ENSMUSG00000023940, ENSMUSG00000072082, ENSMUSG00000026779, ENSMUSG00000033952, ENSMUSG00000032218, ENSMUSG00000027496			
GO:0002685	regulation of leukocyte migration	1.80E-09	21	ENSMUSG00000027995, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000022548, ENSMUSG00000071005, ENSMUSG00000040552, ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000020310, ENSMUSG00000023913, ENSMUSG00000023078, ENSMUSG00000026582, ENSMUSG00000018930, ENSMUSG00000024397, ENSMUSG00000026580, ENSMUSG00000041347, ENSMUSG00000034855, ENSMUSG00000025473	1	4	ENSMUSG00000031380, ENSMUSG00000019326, ENSMUSG00000026874, ENSMUSG00000017697
GO:0002821	positive regulation of adaptive immune response	1.48E-06	16	ENSMUSG00000060802, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000026573,	1	2	ENSMUSG00000090877, ENSMUSG00000017697

				ENSMUSG00000061232, ENSMUSG00000049103, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000073411, ENSMUSG00000024401, ENSMUSG00000024339, ENSMUSG00000030895, ENSMUSG00000037321, ENSMUSG00000026177, ENSMUSG00000067212			
GO:0003013	circulatory system process	1	7	ENSMUSG00000030525, ENSMUSG00000040552, ENSMUSG00000026104, ENSMUSG00000018930, ENSMUSG00000041347, ENSMUSG00000031891, ENSMUSG000000054136	1.65E-06	31	ENSMUSG00000020123, ENSMUSG00000035458, ENSMUSG00000059201, ENSMUSG00000032366, ENSMUSG00000019326, ENSMUSG00000024039, ENSMUSG00000041616, ENSMUSG00000046714, ENSMUSG00000001865, ENSMUSG00000091898, ENSMUSG00000061068, ENSMUSG00000002588, ENSMUSG00000021909, ENSMUSG00000041688, ENSMUSG00000061816, ENSMUSG00000022040, ENSMUSG00000031489, ENSMUSG00000061086, ENSMUSG00000049281, ENSMUSG00000020623, ENSMUSG00000015405, ENSMUSG00000059741, ENSMUSG00000029019, ENSMUSG00000022206, ENSMUSG00000037010, ENSMUSG00000029361, ENSMUSG00000031980, ENSMUSG00000057880, ENSMUSG00000024027, ENSMUSG00000022878, ENSMUSG00000040752
GO:0035456	response to interferon-beta	2.15E-19	17	ENSMUSG00000028269, ENSMUSG00000078922, ENSMUSG00000079362, ENSMUSG00000028270, ENSMUSG00000043263, ENSMUSG00000078853, ENSMUSG00000049734, ENSMUSG00000054203,	1	0	

				ENSMUSG00000073555, ENSMUSG00000074896, ENSMUSG00000037860, ENSMUSG00000073489, ENSMUSG00000028268, ENSMUSG00000039997, ENSMUSG00000026535, ENSMUSG00000054072, ENSMUSG00000034459			
GO:0010951	negative regulation of endopeptidase activity	0.19289064 3	20	ENSMUSG00000017716, ENSMUSG00000074148, ENSMUSG00000029664, ENSMUSG00000066363, ENSMUSG00000021403, ENSMUSG00000041481, ENSMUSG00000059657, ENSMUSG00000068129, ENSMUSG00000041536, ENSMUSG0000001131, ENSMUSG00000058207, ENSMUSG00000079012, ENSMUSG00000061947, ENSMUSG00000025746, ENSMUSG00000020053, ENSMUSG00000066364, ENSMUSG00000021091, ENSMUSG00000030111, ENSMUSG00000066361, ENSMUSG00000051949	0.001091669	25	ENSMUSG00000025860, ENSMUSG00000022868, ENSMUSG00000025889, ENSMUSG00000026715, ENSMUSG00000090877, ENSMUSG00000044594, ENSMUSG00000058017, ENSMUSG00000039278, ENSMUSG00000061311, ENSMUSG00000026874, ENSMUSG00000059956, ENSMUSG00000067006, ENSMUSG00000023336, ENSMUSG00000031760, ENSMUSG00000026327, ENSMUSG00000028356, ENSMUSG00000058260, ENSMUSG00000055561, ENSMUSG00000022871, ENSMUSG00000019278, ENSMUSG00000070531, ENSMUSG00000027442, ENSMUSG00000032060, ENSMUSG00000036867, ENSMUSG00000031980
GO:0044144	modulation of growth of symbiont involved in interaction with host	0.00049450 7	8	ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000041515, ENSMUSG00000055994, ENSMUSG00000024401, ENSMUSG00000038357, ENSMUSG00000016529, ENSMUSG00000004296	1	0	
GO:0052167	modulation by symbiont of host innate immune response	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	
GO:0042135	neurotransmitter catabolic	1	0		0.0006581	6	ENSMUSG00000043943, ENSMUSG00000057606,

	process						ENSMUSG00000040147, ENSMUSG00000057880, ENSMUSG00000025037, ENSMUSG00000023328
GO:0060326	cell chemotaxis	4.93E-10	23	ENSMUSG00000055170, ENSMUSG00000035352, ENSMUSG00000048534, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000035042, ENSMUSG00000071005, ENSMUSG00000058715, ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000049103, ENSMUSG00000074115, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000029304, ENSMUSG00000050232, ENSMUSG00000023078, ENSMUSG00000018930, ENSMUSG00000030786, ENSMUSG00000025804, ENSMUSG00000027398, ENSMUSG00000029380, ENSMUSG00000025473	1	0	
GO:0080134	regulation of response to stress	1.26E-08	55	ENSMUSG00000074151, ENSMUSG00000027995, ENSMUSG00000035673, ENSMUSG00000071005, ENSMUSG00000029377, ENSMUSG00000049103, ENSMUSG00000016529, ENSMUSG00000073406, ENSMUSG00000030413, ENSMUSG00000022906, ENSMUSG00000017146, ENSMUSG00000028874, ENSMUSG00000040296, ENSMUSG00000025804, ENSMUSG00000027398, ENSMUSG00000030895, ENSMUSG00000051498, ENSMUSG00000027639, ENSMUSG00000079227, ENSMUSG00000037321, ENSMUSG00000035365, ENSMUSG00000031551, ENSMUSG00000034459, ENSMUSG00000026770,	1	27	ENSMUSG00000009471, ENSMUSG00000042812, ENSMUSG00000033327, ENSMUSG00000022868, ENSMUSG00000019326, ENSMUSG00000062515, ENSMUSG00000024039, ENSMUSG00000046714, ENSMUSG00000026715, ENSMUSG00000090639, ENSMUSG00000032554, ENSMUSG00000021319, ENSMUSG00000024028, ENSMUSG00000052305, ENSMUSG00000000049, ENSMUSG00000024653, ENSMUSG00000043496, ENSMUSG00000017697, ENSMUSG00000059481, ENSMUSG00000032064, ENSMUSG00000024386, ENSMUSG00000031980, ENSMUSG00000032076, ENSMUSG00000022878,



				<p>ENSMUSG00000025473, ENSMUSG00000005696,  ENSMUSG00000045322, ENSMUSG00000022548,  ENSMUSG00000055994, ENSMUSG00000035042,  ENSMUSG00000058715, ENSMUSG00000030149,  ENSMUSG00000024349, ENSMUSG00000030525,  ENSMUSG00000026573, ENSMUSG00000021322,  ENSMUSG00000000982, ENSMUSG00000004296,  ENSMUSG00000026981, ENSMUSG00000000791,  ENSMUSG00000015947, ENSMUSG00000022901,  ENSMUSG00000026656, ENSMUSG00000050241,  ENSMUSG00000029371, ENSMUSG00000030124,  ENSMUSG00000079298, ENSMUSG00000036986,  ENSMUSG00000024401, ENSMUSG00000026580,  ENSMUSG00000024339, ENSMUSG00000044583,  ENSMUSG00000025746, ENSMUSG00000030111,  ENSMUSG00000042726</p>			<p>ENSMUSG00000073424, ENSMUSG00000010047,  ENSMUSG00000040412</p>
GO:0048523	negative regulation of cellular process	0.00126829 2	139	<p>ENSMUSG00000017716, ENSMUSG00000033538,  ENSMUSG00000036931, ENSMUSG00000049103,  ENSMUSG00000020185, ENSMUSG00000075404,  ENSMUSG00000019942, ENSMUSG00000021190,  ENSMUSG00000000817, ENSMUSG00000036896,  ENSMUSG00000033644, ENSMUSG00000022504,  ENSMUSG00000020053, ENSMUSG00000035365,  ENSMUSG00000031551, ENSMUSG00000042489,  ENSMUSG00000025473, ENSMUSG00000038037,  ENSMUSG00000045322, ENSMUSG00000025492,</p>	1	102	<p>ENSMUSG00000020123, ENSMUSG00000032547,  ENSMUSG00000025889, ENSMUSG00000062515,  ENSMUSG00000046532, ENSMUSG00000066357,  ENSMUSG00000090877, ENSMUSG00000039952,  ENSMUSG00000044820, ENSMUSG00000026983,  ENSMUSG00000013418, ENSMUSG00000026874,  ENSMUSG00000033208, ENSMUSG00000026668,  ENSMUSG00000059495, ENSMUSG00000079428,  ENSMUSG00000031760, ENSMUSG00000010051,  ENSMUSG00000017697, ENSMUSG00000036867,</p>

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GO:0002822	regulation of adaptive immune response based on somatic recombination of immune receptors built from immunoglobulin superfamily domains	5.56E-09	22	ENSMUSG00000044701, ENSMUSG00000055170, ENSMUSG00000060802, ENSMUSG00000001444, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000073411, ENSMUSG00000026656, ENSMUSG00000079620, ENSMUSG00000024401, ENSMUSG00000048806, ENSMUSG00000024339, ENSMUSG00000030895, ENSMUSG00000037321, ENSMUSG00000026177, ENSMUSG00000067212	1	2	ENSMUSG00000090877, ENSMUSG00000017697
GO:0051239	regulation of multicellular organismal process	1.27E-05	111	ENSMUSG00000036931, ENSMUSG00000027995, ENSMUSG00000027699, ENSMUSG00000006930, ENSMUSG00000049103, ENSMUSG00000018899, ENSMUSG00000016529, ENSMUSG00000017724, ENSMUSG00000019942, ENSMUSG00000006398, ENSMUSG00000021190, ENSMUSG00000028072, ENSMUSG00000018930, ENSMUSG00000000817,	0.010718608	104	ENSMUSG00000009471, ENSMUSG00000020123, ENSMUSG00000030302, ENSMUSG00000032547, ENSMUSG00000031495, ENSMUSG00000025889, ENSMUSG00000046532, ENSMUSG00000023328, ENSMUSG00000007122, ENSMUSG00000032511, ENSMUSG00000090877, ENSMUSG00000020524, ENSMUSG00000037188, ENSMUSG00000090639,

			ENSMUSG00000036896, ENSMUSG00000040296, ENSMUSG00000025804, ENSMUSG00000020053, ENSMUSG00000051498, ENSMUSG00000000182, ENSMUSG00000044811, ENSMUSG00000034855, ENSMUSG00000031551, ENSMUSG00000030921, ENSMUSG00000026770, ENSMUSG00000033470, ENSMUSG00000025473, ENSMUSG00000030142, ENSMUSG00000044701, ENSMUSG00000045322, ENSMUSG0000001444, ENSMUSG00000002992, ENSMUSG00000055994, ENSMUSG00000022548, ENSMUSG00000030149, ENSMUSG00000030525, ENSMUSG00000040552, ENSMUSG00000041431, ENSMUSG00000038357, ENSMUSG00000000982, ENSMUSG00000029304, ENSMUSG00000053175, ENSMUSG00000025498, ENSMUSG00000026656, ENSMUSG00000030218, ENSMUSG00000050241, ENSMUSG00000029075, ENSMUSG00000030793, ENSMUSG00000030124, ENSMUSG00000028068, ENSMUSG00000024397, ENSMUSG00000038418, ENSMUSG00000048806, ENSMUSG00000042345, ENSMUSG00000044583, ENSMUSG00000078817, ENSMUSG00000033952, ENSMUSG00000021451, ENSMUSG00000037872, ENSMUSG00000038642, ENSMUSG00000047517, ENSMUSG00000029377, ENSMUSG00000034730, ENSMUSG00000021266, ENSMUSG00000026605, ENSMUSG00000051439,		ENSMUSG00000061393, ENSMUSG00000021909, ENSMUSG00000039278, ENSMUSG00000026874, ENSMUSG00000039004, ENSMUSG00000033208, ENSMUSG00000026668, ENSMUSG00000031253, ENSMUSG00000031760, ENSMUSG00000043496, ENSMUSG00000010051, ENSMUSG00000017697, ENSMUSG00000036867, ENSMUSG00000029193, ENSMUSG00000037010, ENSMUSG00000040289, ENSMUSG00000032076, ENSMUSG00000022878, ENSMUSG00000024027, ENSMUSG00000064179, ENSMUSG00000059201, ENSMUSG00000022868, ENSMUSG00000031214, ENSMUSG00000027470, ENSMUSG00000027077, ENSMUSG00000035486, ENSMUSG00000091898, ENSMUSG00000001494, ENSMUSG00000079434, ENSMUSG00000000049, ENSMUSG00000061723, ENSMUSG00000024990, ENSMUSG00000032356, ENSMUSG00000032083, ENSMUSG00000049281, ENSMUSG00000059741, ENSMUSG00000059481, ENSMUSG00000042903, ENSMUSG00000054196, ENSMUSG00000031980, ENSMUSG00000031380, ENSMUSG00000030730, ENSMUSG00000025810, ENSMUSG00000049556, ENSMUSG00000029368, ENSMUSG00000032366, ENSMUSG00000046714, ENSMUSG00000029236, ENSMUSG00000046402, ENSMUSG00000032010, ENSMUSG00000024534, ENSMUSG00000021319,
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				<p>ENSMUSG00000074115, ENSMUSG00000029378, ENSMUSG00000035385, ENSMUSG00000032691, ENSMUSG00000020641, ENSMUSG00000028874, ENSMUSG00000029915, ENSMUSG00000073489, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000027398, ENSMUSG00000059089, ENSMUSG00000079227, ENSMUSG00000030117, ENSMUSG00000049608, ENSMUSG00000041324, ENSMUSG00000055170, ENSMUSG00000028602, ENSMUSG00000026104, ENSMUSG00000022838, ENSMUSG00000035042, ENSMUSG00000058715, ENSMUSG00000071552, ENSMUSG00000026573, ENSMUSG00000004296, ENSMUSG00000026981, ENSMUSG00000000791, ENSMUSG00000022901, ENSMUSG00000018486, ENSMUSG00000029371, ENSMUSG00000041515, ENSMUSG00000045471, ENSMUSG00000044827, ENSMUSG00000037440, ENSMUSG00000034394, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000074622, ENSMUSG00000021765, ENSMUSG00000028971, ENSMUSG00000026580, ENSMUSG00000037868, ENSMUSG00000025746, ENSMUSG00000026177, ENSMUSG00000054136</p>			<p>ENSMUSG00000033577, ENSMUSG00000032554, ENSMUSG00000024028, ENSMUSG00000041688, ENSMUSG00000020427, ENSMUSG00000031431, ENSMUSG00000022996, ENSMUSG00000031489, ENSMUSG00000061086, ENSMUSG00000032216, ENSMUSG00000048142, ENSMUSG00000063632, ENSMUSG00000032064, ENSMUSG00000024386, ENSMUSG00000029361, ENSMUSG00000073465, ENSMUSG00000038119, ENSMUSG00000073424, ENSMUSG00000024526, ENSMUSG00000040752, ENSMUSG00000040533, ENSMUSG00000050071, ENSMUSG00000035458, ENSMUSG00000032911, ENSMUSG00000007815, ENSMUSG00000025991, ENSMUSG00000053093, ENSMUSG00000000889, ENSMUSG00000038239, ENSMUSG00000029669, ENSMUSG00000031144, ENSMUSG00000031097, ENSMUSG00000032081, ENSMUSG00000024653, ENSMUSG00000062778, ENSMUSG00000020052, ENSMUSG00000026418, ENSMUSG00000010047</p>
GO:0032729	positive regulation of interferon-gamma production	0.000286938	10	<p>ENSMUSG00000050241, ENSMUSG00000041515, ENSMUSG00000024401, ENSMUSG00000030149, ENSMUSG00000027398, ENSMUSG00000049103,</p>	1	0	

				ENSMUSG0000004296, ENSMUSG00000053175, ENSMUSG00000026177, ENSMUSG00000000791			
GO:0060341	regulation of cellular localization	0.00102490 1	46	ENSMUSG00000058755, ENSMUSG00000024112, ENSMUSG00000027995, ENSMUSG00000024791, ENSMUSG00000071005, ENSMUSG00000027699, ENSMUSG00000049103, ENSMUSG00000051439, ENSMUSG00000074115, ENSMUSG00000016529, ENSMUSG00000032691, ENSMUSG00000019942, ENSMUSG00000045328, ENSMUSG00000020848, ENSMUSG0000002055, ENSMUSG00000029915, ENSMUSG00000028874, ENSMUSG00000040296, ENSMUSG00000034652, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000000182, ENSMUSG00000044811, ENSMUSG00000079227, ENSMUSG00000041324, ENSMUSG00000030142, ENSMUSG00000055170, ENSMUSG00000045322, ENSMUSG00000022548, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000024349, ENSMUSG00000030525, ENSMUSG00000041431, ENSMUSG00000037313, ENSMUSG00000000982, ENSMUSG00000023015, ENSMUSG00000026981, ENSMUSG00000029075, ENSMUSG00000030793, ENSMUSG00000045471, ENSMUSG00000034394, ENSMUSG00000024401, ENSMUSG00000044583, ENSMUSG00000025746, ENSMUSG00000078817	1	35	ENSMUSG00000020123, ENSMUSG00000031495, ENSMUSG00000025889, ENSMUSG00000040147, ENSMUSG00000055980, ENSMUSG00000046532, ENSMUSG00000007122, ENSMUSG00000029236, ENSMUSG00000024534, ENSMUSG00000021909, ENSMUSG00000026874, ENSMUSG00000033595, ENSMUSG00000032216, ENSMUSG00000032060, ENSMUSG00000063632, ENSMUSG00000029193, ENSMUSG00000037010, ENSMUSG00000029361, ENSMUSG00000073465, ENSMUSG00000032076, ENSMUSG00000022878, ENSMUSG00000024027, ENSMUSG00000024526, ENSMUSG00000042812, ENSMUSG00000059201, ENSMUSG00000034584, ENSMUSG00000027470, ENSMUSG00000091898, ENSMUSG00000059327, ENSMUSG00000024990, ENSMUSG00000025812, ENSMUSG00000032083, ENSMUSG00000062778, ENSMUSG00000031980, ENSMUSG00000010047
GO:0050866	negative regulation of cell	0.00018007	18	ENSMUSG00000016496, ENSMUSG00000036931,	1	4	ENSMUSG00000063632, ENSMUSG00000042812,

	activation	1		ENSMUSG00000040528, ENSMUSG00000073412, ENSMUSG00000027843, ENSMUSG00000071552, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000016529, ENSMUSG00000026656, ENSMUSG00000030124, ENSMUSG00000016498, ENSMUSG00000022876, ENSMUSG00000026011, ENSMUSG00000048806, ENSMUSG00000034652, ENSMUSG00000031551, ENSMUSG00000026770			ENSMUSG00000024653, ENSMUSG00000024028
GO:0050688	regulation of defense response to virus	0.00280273 3	8	ENSMUSG00000035042, ENSMUSG00000036986, ENSMUSG00000024349, ENSMUSG00000040296, ENSMUSG00000004296, ENSMUSG00000026770, ENSMUSG00000000791, ENSMUSG00000034459	1	0	
GO:0031349	positive regulation of defense response	1.35E-09	26	ENSMUSG00000005696, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000029377, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000000982, ENSMUSG00000004296, ENSMUSG00000015947, ENSMUSG00000022901, ENSMUSG00000050241, ENSMUSG00000030413, ENSMUSG00000030124, ENSMUSG00000024401, ENSMUSG00000025746, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000027398, ENSMUSG00000079227, ENSMUSG00000031551, ENSMUSG00000025473	1	5	ENSMUSG00000019326, ENSMUSG00000062515, ENSMUSG00000043496, ENSMUSG00000032076, ENSMUSG00000010047
GO:0002275	myeloid cell activation	1.41E-05	11	ENSMUSG00000040528, ENSMUSG00000027995,	1	0	



	involved in immune response			ENSMUSG00000045322, ENSMUSG000000055994, ENSMUSG000000040751, ENSMUSG000000035673, ENSMUSG000000058715, ENSMUSG000000034652, ENSMUSG000000044583, ENSMUSG000000051498, ENSMUSG00000000982			
GO:0055010	ventricular cardiac muscle tissue morphogenesis	1	0		0.000277834	11	ENSMUSG000000035458, ENSMUSG000000032366, ENSMUSG000000046714, ENSMUSG000000059741, ENSMUSG000000091898, ENSMUSG000000053093, ENSMUSG000000006235, ENSMUSG000000026418, ENSMUSG000000021909, ENSMUSG000000040289, ENSMUSG000000040752
GO:0052510	positive regulation by organism of defense response of other organism involved in symbiotic interaction	0.00351362 7	5	ENSMUSG000000027995, ENSMUSG000000045322, ENSMUSG000000044583, ENSMUSG000000051498, ENSMUSG000000055994	1	0	
GO:0002707	negative regulation of lymphocyte mediated immunity	5.71E-06	10	ENSMUSG000000026656, ENSMUSG000000050241, ENSMUSG000000055994, ENSMUSG000000079298, ENSMUSG000000079620, ENSMUSG000000024339, ENSMUSG000000048806, ENSMUSG000000026573, ENSMUSG000000073406, ENSMUSG000000037321	1	0	
GO:0032880	regulation of protein localization	1.50E-05	35	ENSMUSG000000027995, ENSMUSG000000024791, ENSMUSG000000071005, ENSMUSG000000027699, ENSMUSG000000051439, ENSMUSG000000074115, ENSMUSG000000016529, ENSMUSG000000032691, ENSMUSG000000019942, ENSMUSG000000045328,	1	13	ENSMUSG000000024990, ENSMUSG000000034584, ENSMUSG000000031495, ENSMUSG000000059201, ENSMUSG000000032083, ENSMUSG000000046532, ENSMUSG000000062778, ENSMUSG000000059327, ENSMUSG000000026874, ENSMUSG000000032076,

				<p>ENSMUSG0000002055, ENSMUSG00000029915,  ENSMUSG00000028874, ENSMUSG00000040296,  ENSMUSG00000020053, ENSMUSG00000027398,  ENSMUSG00000020651, ENSMUSG00000044811,  ENSMUSG00000079227, ENSMUSG00000030142,  ENSMUSG00000055170, ENSMUSG00000045322,  ENSMUSG00000022548, ENSMUSG00000055994,  ENSMUSG00000024349, ENSMUSG00000041431,  ENSMUSG00000037313, ENSMUSG00000000982,  ENSMUSG00000023015, ENSMUSG00000030793,  ENSMUSG00000029075, ENSMUSG00000024401,  ENSMUSG00000025746, ENSMUSG00000044583,  ENSMUSG00000078817</p>			<p>ENSMUSG00000022878, ENSMUSG00000010047,  ENSMUSG00000024526</p>
GO:0009617	response to bacterium	5.39E-22	56	<p>ENSMUSG00000024079, ENSMUSG00000060802,  ENSMUSG00000027995, ENSMUSG00000058427,  ENSMUSG00000029298, ENSMUSG00000079563,  ENSMUSG00000061232, ENSMUSG00000051439,  ENSMUSG00000016529, ENSMUSG00000035385,  ENSMUSG00000020638, ENSMUSG00000030413,  ENSMUSG00000028874, ENSMUSG00000070034,  ENSMUSG00000040253, ENSMUSG00000025804,  ENSMUSG00000027398, ENSMUSG00000051498,  ENSMUSG00000059089, ENSMUSG00000054072,  ENSMUSG00000079227, ENSMUSG00000031551,  ENSMUSG00000028362, ENSMUSG00000055170,  ENSMUSG00000028269, ENSMUSG00000069874,</p>	1	10	<p>ENSMUSG00000020889, ENSMUSG00000031495,  ENSMUSG00000025889, ENSMUSG00000059230,  ENSMUSG00000028036, ENSMUSG00000037071,  ENSMUSG00000036216, ENSMUSG00000025991,  ENSMUSG00000056978, ENSMUSG00000035459</p>

				ENSMUSG00000045322, ENSMUSG00000026104, ENSMUSG00000079362, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000056529, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000028270, ENSMUSG00000038357, ENSMUSG0000000982, ENSMUSG0000004296, ENSMUSG00000076612, ENSMUSG00000053175, ENSMUSG00000015947, ENSMUSG00000026656, ENSMUSG00000041515, ENSMUSG00000044827, ENSMUSG00000023078, ENSMUSG00000029371, ENSMUSG0000003283, ENSMUSG00000028268, ENSMUSG00000024401, ENSMUSG00000054588, ENSMUSG00000024339, ENSMUSG00000048806, ENSMUSG00000041347, ENSMUSG00000022126, ENSMUSG00000053219, ENSMUSG00000026177			
GO:0002253	activation of immune response	4.17E-08	25	ENSMUSG00000036905, ENSMUSG00000074148, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000027843, ENSMUSG00000036887, ENSMUSG00000055994, ENSMUSG00000040751, ENSMUSG00000092005, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000024349, ENSMUSG00000040552, ENSMUSG00000024371, ENSMUSG00000055172, ENSMUSG00000022901, ENSMUSG00000050241, ENSMUSG00000030413, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000090231, ENSMUSG00000044583,	1	4	ENSMUSG00000046834, ENSMUSG00000061780, ENSMUSG00000043496, ENSMUSG00000026874

				ENSMUSG00000051498, ENSMUSG00000049109, ENSMUSG00000025473			
GO:0043900	regulation of multi-organism process	3.48E-07	17	ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000024349, ENSMUSG00000016529, ENSMUSG00000038357, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG000000041515, ENSMUSG00000029371, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000040296, ENSMUSG00000079227, ENSMUSG00000026770, ENSMUSG00000034459	1	2	ENSMUSG00000017697, ENSMUSG00000037071
GO:0032675	regulation of interleukin-6 production	7.65E-07	17	ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000029377, ENSMUSG00000030525, ENSMUSG00000016529, ENSMUSG00000044827, ENSMUSG00000024401, ENSMUSG00000025746, ENSMUSG00000044583, ENSMUSG00000027398, ENSMUSG00000051498, ENSMUSG00000078817, ENSMUSG00000079227, ENSMUSG00000030921	1	2	ENSMUSG00000031380, ENSMUSG00000010047
GO:0031342	negative regulation of cell killing	0.00916696 9	6	ENSMUSG00000024339, ENSMUSG00000050241, ENSMUSG00000073406, ENSMUSG00000037321, ENSMUSG00000079298, ENSMUSG00000079620	1	0	
GO:0003009	skeletal muscle contraction	1	0		0.001589427	6	ENSMUSG00000061723, ENSMUSG00000031097, ENSMUSG00000091898, ENSMUSG00000064179, ENSMUSG00000021909, ENSMUSG00000017300

GO:0050870	positive regulation of T cell activation	0.00280397 5	17	ENSMUSG00000055170, ENSMUSG00000035042, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000022901, ENSMUSG00000037440, ENSMUSG00000075122, ENSMUSG00000016498, ENSMUSG00000024397, ENSMUSG00000025746, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000026770, ENSMUSG00000025473	1	2	ENSMUSG00000026532, ENSMUSG00000017697
GO:0045123	cellular extravasation	0.00124506	7	ENSMUSG00000026580, ENSMUSG00000049103, ENSMUSG00000026582, ENSMUSG00000035385, ENSMUSG00000035042, ENSMUSG00000030786, ENSMUSG00000024401	1	0	
GO:0001775	cell activation	2.84E-11	49	ENSMUSG00000060802, ENSMUSG00000040528, ENSMUSG00000074148, ENSMUSG00000027995, ENSMUSG00000035673, ENSMUSG00000071005, ENSMUSG00000071068, ENSMUSG00000018899, ENSMUSG00000053977, ENSMUSG00000028072, ENSMUSG00000062007, ENSMUSG00000030786, ENSMUSG00000034652, ENSMUSG00000051498, ENSMUSG00000059089, ENSMUSG00000028362, ENSMUSG00000055170, ENSMUSG00000068227, ENSMUSG00000045322, ENSMUSG00000027843, ENSMUSG0000001444, ENSMUSG00000040751, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000039748, ENSMUSG0000002699,	1	7	ENSMUSG00000064201, ENSMUSG00000033831, ENSMUSG00000025889, ENSMUSG00000031980, ENSMUSG00000061311, ENSMUSG00000010047, ENSMUSG00000017697

				ENSMUSG00000035186, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000030525, ENSMUSG00000026573, ENSMUSG00000040627, ENSMUSG0000000982, ENSMUSG0000004296, ENSMUSG00000053175, ENSMUSG00000025001, ENSMUSG00000022901, ENSMUSG00000050241, ENSMUSG00000029075, ENSMUSG00000044827, ENSMUSG00000001131, ENSMUSG00000034116, ENSMUSG00000024401, ENSMUSG00000038418, ENSMUSG00000058818, ENSMUSG00000044583, ENSMUSG00000025746, ENSMUSG00000049109, ENSMUSG00000026177			
GO:0002460	adaptive immune response based on somatic recombination of immune receptors built from immunoglobulin superfamily domains	1.76E-08	22	ENSMUSG00000036905, ENSMUSG00000070427, ENSMUSG00000036887, ENSMUSG00000055994, ENSMUSG00000092005, ENSMUSG00000039748, ENSMUSG00000058715, ENSMUSG00000040552, ENSMUSG00000026573, ENSMUSG00000040627, ENSMUSG00000024371, ENSMUSG00000015437, ENSMUSG00000053977, ENSMUSG00000076612, ENSMUSG00000055172, ENSMUSG00000053175, ENSMUSG00000015947, ENSMUSG00000025498, ENSMUSG00000026656, ENSMUSG00000058818, ENSMUSG00000051498, ENSMUSG00000026177	1	0	
GO:0048584	positive regulation of response to stimulus	3.67E-10	83	ENSMUSG00000060802, ENSMUSG00000058755, ENSMUSG00000027995, ENSMUSG00000036887, ENSMUSG00000027699, ENSMUSG00000049103,	1	44	ENSMUSG00000031380, ENSMUSG00000032547, ENSMUSG00000029368, ENSMUSG00000062515, ENSMUSG00000061780, ENSMUSG00000055980,

			ENSMUSG00000061232, ENSMUSG00000053977, ENSMUSG00000022831, ENSMUSG00000028072, ENSMUSG00000018930, ENSMUSG00000000817, ENSMUSG00000001123, ENSMUSG00000028071, ENSMUSG00000025804, ENSMUSG00000020053, ENSMUSG00000046718, ENSMUSG00000030895, ENSMUSG00000051498, ENSMUSG00000000182, ENSMUSG00000037321, ENSMUSG00000034855, ENSMUSG00000031551, ENSMUSG00000033470, ENSMUSG00000025473, ENSMUSG00000005696, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000040751, ENSMUSG00000030149, ENSMUSG00000040552, ENSMUSG00000035373, ENSMUSG00000024371, ENSMUSG00000000982, ENSMUSG00000055172, ENSMUSG00000023913, ENSMUSG00000050241, ENSMUSG00000030124, ENSMUSG00000024397, ENSMUSG00000044583, ENSMUSG00000033952, ENSMUSG00000021451, ENSMUSG00000074148, ENSMUSG00000036905, ENSMUSG00000074151, ENSMUSG00000071005, ENSMUSG00000031444, ENSMUSG00000029377, ENSMUSG00000035385, ENSMUSG00000073411, ENSMUSG00000030413, ENSMUSG00000062007, ENSMUSG00000017146, ENSMUSG00000028874, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000027398, ENSMUSG00000079227,			ENSMUSG00000046532, ENSMUSG00000046714, ENSMUSG00000090877, ENSMUSG00000031841, ENSMUSG00000021319, ENSMUSG00000061393, ENSMUSG00000024028, ENSMUSG00000026874, ENSMUSG00000039004, ENSMUSG00000033208, ENSMUSG00000021055, ENSMUSG00000005705, ENSMUSG00000020427, ENSMUSG00000022996, ENSMUSG00000031489, ENSMUSG00000031760, ENSMUSG00000029195, ENSMUSG00000043496, ENSMUSG00000032216, ENSMUSG00000017697, ENSMUSG00000063632, ENSMUSG00000032064, ENSMUSG00000046834, ENSMUSG00000073465, ENSMUSG00000038119, ENSMUSG00000032076, ENSMUSG00000022878, ENSMUSG00000025860, ENSMUSG00000059201, ENSMUSG00000055653, ENSMUSG00000019326, ENSMUSG00000032570, ENSMUSG00000025386, ENSMUSG00000059327, ENSMUSG00000058914, ENSMUSG00000020052, ENSMUSG00000031980, ENSMUSG00000010047
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				ENSMUSG00000049608, ENSMUSG00000067212, ENSMUSG00000055170, ENSMUSG00000057135, ENSMUSG00000027843, ENSMUSG00000092005, ENSMUSG00000035042, ENSMUSG00000035186, ENSMUSG00000058715, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000022901, ENSMUSG00000023078, ENSMUSG00000034394, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000090231, ENSMUSG00000024339, ENSMUSG00000025746, ENSMUSG00000049109, ENSMUSG00000026177, ENSMUSG00000025165			
GO:0002230	positive regulation of defense response to virus by host	0.00051139 6	6	ENSMUSG00000024349, ENSMUSG00000040296, ENSMUSG00000004296, ENSMUSG00000035042, ENSMUSG00000000791, ENSMUSG00000036986	1	0	
GO:0050863	regulation of T cell activation	6.42E-07	27	ENSMUSG00000016496, ENSMUSG00000044701, ENSMUSG00000036931, ENSMUSG00000055170, ENSMUSG00000027843, ENSMUSG00000035042, ENSMUSG00000071552, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000022901, ENSMUSG00000030124, ENSMUSG00000037440, ENSMUSG00000075122, ENSMUSG00000016498, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000024397,	1	3	ENSMUSG00000024653, ENSMUSG00000026532, ENSMUSG00000017697



				ENSMUSG00000048806, ENSMUSG00000025746, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000031551, ENSMUSG00000026770, ENSMUSG00000025473			
GO:0015671	oxygen transport	1	0		5.21E-09	9	ENSMUSG00000020295, ENSMUSG00000073063, ENSMUSG00000078621, ENSMUSG00000018893, ENSMUSG00000021032, ENSMUSG00000055609, ENSMUSG00000052305, ENSMUSG00000052187, ENSMUSG00000052217
GO:0002675	positive regulation of acute inflammatory response	0.00577935 2	8	ENSMUSG00000035042, ENSMUSG00000024401, ENSMUSG00000058715, ENSMUSG00000025746, ENSMUSG00000027398, ENSMUSG00000079227, ENSMUSG00000025473, ENSMUSG00000015947	1	0	
GO:0072678	T cell migration	0.00472930 9	4	ENSMUSG00000050232, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG00000000982	1	0	
GO:0035458	cellular response to interferon-beta	2.34E-20	17	ENSMUSG00000028269, ENSMUSG00000078922, ENSMUSG00000079362, ENSMUSG00000028270, ENSMUSG00000043263, ENSMUSG00000078853, ENSMUSG00000049734, ENSMUSG00000054203, ENSMUSG00000073555, ENSMUSG00000074896, ENSMUSG00000037860, ENSMUSG00000073489, ENSMUSG00000028268, ENSMUSG00000039997, ENSMUSG00000026535, ENSMUSG00000054072, ENSMUSG00000034459	1	0	
GO:0051249	regulation of lymphocyte activation	1.12E-08	35	ENSMUSG00000036931, ENSMUSG00000073412, ENSMUSG00000049103, ENSMUSG00000016529,	1	4	ENSMUSG00000063632, ENSMUSG00000024653, ENSMUSG00000026532, ENSMUSG00000017697

				<p>ENSMUSG00000038179, ENSMUSG00000035385,  ENSMUSG00000075122, ENSMUSG00000030365,  ENSMUSG00000026011, ENSMUSG00000020053,  ENSMUSG00000027398, ENSMUSG00000031551,  ENSMUSG00000026770, ENSMUSG00000025473,  ENSMUSG00000044701, ENSMUSG00000016496,  ENSMUSG00000055170, ENSMUSG00000001444,  ENSMUSG00000027843, ENSMUSG00000055994,  ENSMUSG00000035042, ENSMUSG00000071552,  ENSMUSG00000026573, ENSMUSG00000004296,  ENSMUSG00000000791, ENSMUSG00000022901,  ENSMUSG00000026656, ENSMUSG00000029075,  ENSMUSG00000037440, ENSMUSG00000030124,  ENSMUSG00000016498, ENSMUSG00000022876,  ENSMUSG00000024397, ENSMUSG00000048806,  ENSMUSG00000025746</p>			
GO:0001818	negative regulation of cytokine production	9.36E-05	17	<p>ENSMUSG00000055170, ENSMUSG00000027995,  ENSMUSG00000045322, ENSMUSG00000055994,  ENSMUSG00000022548, ENSMUSG00000071552,  ENSMUSG00000030525, ENSMUSG00000026573,  ENSMUSG00000016529, ENSMUSG00000004296,  ENSMUSG00000026656, ENSMUSG00000024401,  ENSMUSG00000048806, ENSMUSG00000078817,  ENSMUSG00000030921, ENSMUSG00000026177,  ENSMUSG00000031551</p>	1	4	<p>ENSMUSG00000024653, ENSMUSG00000032083,  ENSMUSG00000022878, ENSMUSG00000024526</p>
GO:0035821	modification of morphology	0.00514216	10	<p>ENSMUSG00000027995, ENSMUSG00000045322,</p>	1	2	<p>ENSMUSG00000029368, ENSMUSG00000010047</p>

	or physiology of other organism	7		ENSMUSG00000018930, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000038357, ENSMUSG00000000982, ENSMUSG00000079227			
GO:0044126	regulation of growth of symbiont in host	0.00049450 7	8	ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000041515, ENSMUSG00000055994, ENSMUSG00000024401, ENSMUSG00000038357, ENSMUSG00000016529, ENSMUSG00000004296	1	0	
GO:0050671	positive regulation of lymphocyte proliferation	0.00725884 9	15	ENSMUSG00000055170, ENSMUSG00000029075, ENSMUSG00000075122, ENSMUSG00000035042, ENSMUSG00000016498, ENSMUSG00000024397, ENSMUSG00000026573, ENSMUSG00000020053, ENSMUSG00000025746, ENSMUSG00000027398, ENSMUSG00000049103, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000026770, ENSMUSG00000022901	1	2	ENSMUSG00000026532, ENSMUSG00000017697
GO:0045088	regulation of innate immune response	1.95E-14	28	ENSMUSG00000005696, ENSMUSG000000074151, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000030149, ENSMUSG00000029377, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000073406, ENSMUSG00000004296, ENSMUSG00000022901, ENSMUSG00000050241, ENSMUSG00000030413, ENSMUSG00000030124, ENSMUSG00000022906, ENSMUSG00000028874, ENSMUSG00000079298, ENSMUSG00000024339, ENSMUSG00000025804,	1	2	ENSMUSG00000043496, ENSMUSG00000032076

				ENSMUSG00000044583, ENSMUSG000000051498, ENSMUSG00000030895, ENSMUSG00000027639, ENSMUSG00000037321, ENSMUSG00000030111, ENSMUSG00000042726, ENSMUSG00000025473			
GO:2000404	regulation of T cell migration	0.00509985 9	6	ENSMUSG00000024397, ENSMUSG00000026573, ENSMUSG00000023078, ENSMUSG00000049103, ENSMUSG00000035042, ENSMUSG00000022548	1	0	
GO:0002250	adaptive immune response	1.34E-09	24	ENSMUSG00000055170, ENSMUSG00000036905, ENSMUSG00000070427, ENSMUSG00000036887, ENSMUSG00000055994, ENSMUSG00000092005, ENSMUSG00000039748, ENSMUSG00000058715, ENSMUSG00000040552, ENSMUSG00000026573, ENSMUSG00000040627, ENSMUSG00000024371, ENSMUSG00000015437, ENSMUSG00000053977, ENSMUSG00000076612, ENSMUSG00000055172, ENSMUSG00000053175, ENSMUSG00000015947, ENSMUSG00000025498, ENSMUSG00000026656, ENSMUSG00000058818, ENSMUSG00000048806, ENSMUSG00000051498, ENSMUSG00000026177	1	0	
GO:0032103	positive regulation of response to external stimulus	5.92E-05	21	ENSMUSG00000035042, ENSMUSG00000071005, ENSMUSG00000058715, ENSMUSG00000040552, ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000015947, ENSMUSG00000023913, ENSMUSG00000023078, ENSMUSG00000018930, ENSMUSG00000024401,	1	6	ENSMUSG00000031380, ENSMUSG00000031841, ENSMUSG00000019326, ENSMUSG00000062515, ENSMUSG00000026874, ENSMUSG00000010047

				ENSMUSG00000024397, ENSMUSG00000025746, ENSMUSG00000027398, ENSMUSG00000079227, ENSMUSG00000034855, ENSMUSG00000031551, ENSMUSG00000025473			
GO:0052308	pathogen-associated molecular pattern dependent modulation by organism of innate immune response in other organism involved in symbiotic interaction	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	
GO:0002697	regulation of immune effector process	2.95E-19	43	ENSMUSG00000060802, ENSMUSG00000027995, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000016529, ENSMUSG00000073406, ENSMUSG00000035385, ENSMUSG00000073411, ENSMUSG00000028874, ENSMUSG00000040296, ENSMUSG00000034652, ENSMUSG00000030895, ENSMUSG00000037321, ENSMUSG00000034459, ENSMUSG00000026770, ENSMUSG00000067212, ENSMUSG00000044701, ENSMUSG00000005696, ENSMUSG00000055170, ENSMUSG00000001444, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000024353, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000026656, ENSMUSG00000050241,	1	6	ENSMUSG00000090877, ENSMUSG00000042812, ENSMUSG00000024990, ENSMUSG00000043496, ENSMUSG00000032083, ENSMUSG00000032076

				ENSMUSG00000029075, ENSMUSG00000029371, ENSMUSG00000030124, ENSMUSG00000079298, ENSMUSG00000079620, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000024339, ENSMUSG00000048806, ENSMUSG00000025746, ENSMUSG00000030111			
GO:0050691	regulation of defense response to virus by host	0.00352050 2	7	ENSMUSG00000024349, ENSMUSG00000040296, ENSMUSG00000004296, ENSMUSG00000035042, ENSMUSG00000034459, ENSMUSG00000000791, ENSMUSG00000036986	1	0	
GO:0070887	cellular response to chemical stimulus	4.63E-10	85	ENSMUSG00000048534, ENSMUSG00000027699, ENSMUSG00000066861, ENSMUSG00000049103, ENSMUSG00000018899, ENSMUSG00000078853, ENSMUSG00000026073, ENSMUSG00000050232, ENSMUSG00000028072, ENSMUSG00000054203, ENSMUSG00000018930, ENSMUSG00000030786, ENSMUSG00000040253, ENSMUSG00000025804, ENSMUSG00000040264, ENSMUSG00000045932, ENSMUSG00000000182, ENSMUSG00000054072, ENSMUSG00000026770, ENSMUSG00000091875, ENSMUSG00000025473, ENSMUSG00000038037, ENSMUSG00000026068, ENSMUSG00000025492, ENSMUSG00000079362, ENSMUSG00000028270, ENSMUSG00000035373, ENSMUSG00000000982, ENSMUSG00000029304, ENSMUSG00000030793, ENSMUSG00000028268, ENSMUSG00000028068,	1	47	ENSMUSG00000031134, ENSMUSG00000009471, ENSMUSG00000025810, ENSMUSG00000027796, ENSMUSG00000025889, ENSMUSG00000062515, ENSMUSG00000055980, ENSMUSG00000046532, ENSMUSG00000032511, ENSMUSG00000046714, ENSMUSG00000031841, ENSMUSG00000057182, ENSMUSG00000024028, ENSMUSG00000078658, ENSMUSG00000032310, ENSMUSG00000018566, ENSMUSG00000021055, ENSMUSG00000020889, ENSMUSG00000005547, ENSMUSG00000005705, ENSMUSG00000022996, ENSMUSG00000031760, ENSMUSG00000029195, ENSMUSG00000010051, ENSMUSG00000019278, ENSMUSG00000074183, ENSMUSG00000026459, ENSMUSG00000057933, ENSMUSG00000029361, ENSMUSG00000032348, ENSMUSG00000022878, ENSMUSG00000042812,

			ENSMUSG00000038418, ENSMUSG00000048806, ENSMUSG00000058818, ENSMUSG00000029380, ENSMUSG00000053219, ENSMUSG00000024079, ENSMUSG00000035352, ENSMUSG00000078922, ENSMUSG00000003665, ENSMUSG00000026822, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000071005, ENSMUSG00000031762, ENSMUSG00000029377, ENSMUSG00000029811, ENSMUSG00000029298, ENSMUSG00000043263, ENSMUSG00000074115, ENSMUSG00000035385, ENSMUSG00000017146, ENSMUSG00000037860, ENSMUSG00000073489, ENSMUSG00000039997, ENSMUSG00000026535, ENSMUSG00000027398, ENSMUSG00000034459, ENSMUSG00000041324, ENSMUSG00000031765, ENSMUSG00000055170, ENSMUSG00000068227, ENSMUSG00000079363, ENSMUSG00000028269, ENSMUSG00000026104, ENSMUSG00000035042, ENSMUSG00000071714, ENSMUSG00000058715, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG0000004296, ENSMUSG00000000791, ENSMUSG00000049734, ENSMUSG00000023078, ENSMUSG00000073555, ENSMUSG00000074896, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000034438, ENSMUSG00000054588, ENSMUSG00000026580, ENSMUSG00000025746, ENSMUSG00000037868,			ENSMUSG00000041658, ENSMUSG00000059201, ENSMUSG00000052974, ENSMUSG0000005373, ENSMUSG00000024039, ENSMUSG00000035486, ENSMUSG00000032315, ENSMUSG00000001494, ENSMUSG00000027820, ENSMUSG00000023013, ENSMUSG00000031144, ENSMUSG00000030747, ENSMUSG00000042903, ENSMUSG00000006235, ENSMUSG00000010047
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				ENSMUSG0000007173			
GO:0002274	myeloid leukocyte activation	4.55E-07	17	ENSMUSG00000040528, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000040751, ENSMUSG00000035673, ENSMUSG0000002699, ENSMUSG00000035186, ENSMUSG00000058715, ENSMUSG0000000982, ENSMUSG00000044827, ENSMUSG00000058818, ENSMUSG00000044583, ENSMUSG00000034652, ENSMUSG00000051498, ENSMUSG00000026177	1	2	ENSMUSG00000025889, ENSMUSG00000010047
GO:0048002	antigen processing and presentation of peptide antigen	7.07E-08	14	ENSMUSG00000026656, ENSMUSG00000073411, ENSMUSG00000060802, ENSMUSG00000058715, ENSMUSG00000073409, ENSMUSG00000024339, ENSMUSG00000035929, ENSMUSG00000061232, ENSMUSG00000037321, ENSMUSG00000026177, ENSMUSG00000036469, ENSMUSG00000015947, ENSMUSG00000060550, ENSMUSG00000067212	1	0	
GO:0002688	regulation of leukocyte chemotaxis	6.86E-06	14	ENSMUSG00000023913, ENSMUSG00000023078, ENSMUSG00000018930, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000071005, ENSMUSG00000024397, ENSMUSG00000026573, ENSMUSG00000040552, ENSMUSG00000035373, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000034855	1	2	ENSMUSG00000031380, ENSMUSG00000026874
GO:0048522	positive regulation of cellular process	1.83E-07	171	ENSMUSG00000017716, ENSMUSG00000033538, ENSMUSG00000036931, ENSMUSG00000027995,	1	113	ENSMUSG00000009471, ENSMUSG00000039956, ENSMUSG00000021506, ENSMUSG00000020123,



			ENSMUSG00000027699, ENSMUSG00000049103, ENSMUSG00000053977, ENSMUSG00000075404, ENSMUSG00000019942, ENSMUSG00000022831, ENSMUSG00000020848, ENSMUSG00000000817, ENSMUSG00000033644, ENSMUSG00000022504, ENSMUSG00000001123, ENSMUSG00000028071, ENSMUSG00000040296, ENSMUSG00000000247, ENSMUSG00000020053, ENSMUSG00000027715, ENSMUSG00000031551, ENSMUSG00000025473, ENSMUSG00000030142, ENSMUSG00000045322, ENSMUSG00000001444, ENSMUSG00000002992, ENSMUSG00000055994, ENSMUSG00000001228, ENSMUSG00000030149, ENSMUSG00000041431, ENSMUSG00000000982, ENSMUSG00000029304, ENSMUSG00000038067, ENSMUSG00000053175, ENSMUSG00000002307, ENSMUSG00000026656, ENSMUSG00000023913, ENSMUSG00000020897, ENSMUSG00000029075, ENSMUSG00000017499, ENSMUSG00000026582, ENSMUSG00000028068, ENSMUSG00000022221, ENSMUSG00000038418, ENSMUSG00000024079, ENSMUSG00000074151, ENSMUSG00000040613, ENSMUSG00000026822, ENSMUSG00000071005, ENSMUSG00000038209, ENSMUSG00000047517, ENSMUSG00000029377, ENSMUSG00000051439, ENSMUSG00000032691, ENSMUSG00000045328, ENSMUSG00000062007,			ENSMUSG00000017204, ENSMUSG00000032547, ENSMUSG00000031495, ENSMUSG00000025889, ENSMUSG00000062515, ENSMUSG00000046532, ENSMUSG00000054422, ENSMUSG00000023328, ENSMUSG00000020524, ENSMUSG00000037188, ENSMUSG00000044820, ENSMUSG00000090639, ENSMUSG00000061393, ENSMUSG00000071317, ENSMUSG00000026874, ENSMUSG00000039004, ENSMUSG00000033208, ENSMUSG00000034910, ENSMUSG00000031253, ENSMUSG00000031760, ENSMUSG00000029195, ENSMUSG00000019102, ENSMUSG00000010051, ENSMUSG00000032839, ENSMUSG00000044405, ENSMUSG00000037071, ENSMUSG00000017697, ENSMUSG00000036867, ENSMUSG00000026459, ENSMUSG00000049641, ENSMUSG00000029193, ENSMUSG00000037010, ENSMUSG00000040289, ENSMUSG00000051234, ENSMUSG00000032076, ENSMUSG00000008035, ENSMUSG00000022878, ENSMUSG00000024027, ENSMUSG00000025860, ENSMUSG00000013076, ENSMUSG00000042812, ENSMUSG00000034584, ENSMUSG00000059201, ENSMUSG00000022868, ENSMUSG00000027470, ENSMUSG00000030278, ENSMUSG00000035486, ENSMUSG00000041624, ENSMUSG00000001494, ENSMUSG00000032315, ENSMUSG00000079434, ENSMUSG00000059327,
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			ENSMUSG00000079019, ENSMUSG00000026770, ENSMUSG00000033470, ENSMUSG00000044701, ENSMUSG00000005696, ENSMUSG00000018920, ENSMUSG00000070691, ENSMUSG00000030525, ENSMUSG00000040552, ENSMUSG00000040627, ENSMUSG00000035373, ENSMUSG00000027306, ENSMUSG00000038357, ENSMUSG00000025498, ENSMUSG0000002068, ENSMUSG00000030793, ENSMUSG0000003283, ENSMUSG00000078236, ENSMUSG00000030867, ENSMUSG00000016498, ENSMUSG00000022622, ENSMUSG00000044138, ENSMUSG00000024397, ENSMUSG00000048806, ENSMUSG00000044583, ENSMUSG00000078817, ENSMUSG00000033952, ENSMUSG00000021451, ENSMUSG00000027832, ENSMUSG00000025044, ENSMUSG00000031444, ENSMUSG00000074115, ENSMUSG00000029378, ENSMUSG00000035385, ENSMUSG00000023132, ENSMUSG00000017146, ENSMUSG00000075122, ENSMUSG00000028874, ENSMUSG00000029915, ENSMUSG00000073489, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000079227, ENSMUSG00000049608, ENSMUSG00000035683, ENSMUSG00000041324, ENSMUSG00000024014, ENSMUSG00000057135, ENSMUSG00000028602, ENSMUSG00000026104, ENSMUSG00000024349, ENSMUSG00000026573,		ENSMUSG00000031097, ENSMUSG00000062778, ENSMUSG00000058914, ENSMUSG00000020052, ENSMUSG00000010047
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				ENSMUSG00000020310, ENSMUSG000000024798, ENSMUSG00000022901, ENSMUSG00000021886, ENSMUSG00000045471, ENSMUSG00000044827, ENSMUSG00000034116, ENSMUSG00000020649, ENSMUSG00000041347, ENSMUSG00000026177, ENSMUSG00000054136			
GO:0051251	positive regulation of lymphocyte activation	0.00446454	20	ENSMUSG00000055170, ENSMUSG00000001444, ENSMUSG00000035042, ENSMUSG00000055994, ENSMUSG00000026573, ENSMUSG00000049103, ENSMUSG00000035385, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000022901, ENSMUSG00000029075, ENSMUSG00000037440, ENSMUSG00000075122, ENSMUSG00000016498, ENSMUSG00000024397, ENSMUSG00000025746, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000026770, ENSMUSG00000025473	1	2	ENSMUSG00000026532, ENSMUSG00000017697
GO:0050830	defense response to Gram-positive bacterium	2.25E-10	17	ENSMUSG00000027995, ENSMUSG00000028269, ENSMUSG00000079362, ENSMUSG00000055994, ENSMUSG00000030149, ENSMUSG00000028270, ENSMUSG00000029298, ENSMUSG00000079563, ENSMUSG00000038357, ENSMUSG00000030413, ENSMUSG00000003283, ENSMUSG00000028874, ENSMUSG00000028268, ENSMUSG00000024401, ENSMUSG00000040253, ENSMUSG00000054588, ENSMUSG00000028362	1	0	
GO:0051050	positive regulation of	3.44E-05	45	ENSMUSG00000027832, ENSMUSG00000024112,	1	32	ENSMUSG00000020123, ENSMUSG00000030302,

	transport			ENSMUSG00000027995, ENSMUSG00000071005, ENSMUSG00000038209, ENSMUSG00000027699, ENSMUSG00000051439, ENSMUSG00000074115, ENSMUSG00000016529, ENSMUSG00000032691, ENSMUSG00000019942, ENSMUSG00000020848, ENSMUSG00000018930, ENSMUSG00000029915, ENSMUSG00000028874, ENSMUSG00000040296, ENSMUSG00000025804, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000044811, ENSMUSG00000079227, ENSMUSG00000030142, ENSMUSG00000055170, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000058715, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000000982, ENSMUSG00000015947, ENSMUSG00000026656, ENSMUSG00000030793, ENSMUSG00000045471, ENSMUSG00000029075, ENSMUSG00000026582, ENSMUSG00000034394, ENSMUSG00000024401, ENSMUSG00000044138, ENSMUSG00000025746, ENSMUSG00000044583, ENSMUSG00000041347, ENSMUSG00000029380, ENSMUSG00000078817, ENSMUSG00000026177			ENSMUSG00000031495, ENSMUSG00000025889, ENSMUSG00000055980, ENSMUSG00000029236, ENSMUSG00000002588, ENSMUSG00000021319, ENSMUSG00000026874, ENSMUSG00000032216, ENSMUSG00000032839, ENSMUSG00000048142, ENSMUSG00000063632, ENSMUSG00000029193, ENSMUSG00000037010, ENSMUSG00000032076, ENSMUSG00000024027, ENSMUSG00000022878, ENSMUSG00000059201, ENSMUSG00000055653, ENSMUSG00000034584, ENSMUSG00000019326, ENSMUSG00000022868, ENSMUSG00000059327, ENSMUSG00000050164, ENSMUSG00000023013, ENSMUSG00000024990, ENSMUSG00000062778, ENSMUSG00000049281, ENSMUSG00000031997, ENSMUSG00000031980, ENSMUSG00000010047
GO:0052564	response to immune response of other organism involved in symbiotic interaction	0.00907611	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	

GO:0002683	negative regulation of immune system process	1.21E-14	37	ENSMUSG00000036931, ENSMUSG00000040528, ENSMUSG00000073412, ENSMUSG00000049103, ENSMUSG00000024696, ENSMUSG00000016529, ENSMUSG00000073406, ENSMUSG00000035385, ENSMUSG00000026011, ENSMUSG00000025804, ENSMUSG00000034652, ENSMUSG00000037321, ENSMUSG00000031551, ENSMUSG00000034459, ENSMUSG00000030921, ENSMUSG00000026770, ENSMUSG00000016496, ENSMUSG00000045322, ENSMUSG00000027843, ENSMUSG00000022548, ENSMUSG00000055994, ENSMUSG00000071552, ENSMUSG00000026573, ENSMUSG00000004296, ENSMUSG00000022901, ENSMUSG00000026656, ENSMUSG00000050241, ENSMUSG00000030124, ENSMUSG00000079298, ENSMUSG00000079620, ENSMUSG00000016498, ENSMUSG00000022876, ENSMUSG00000024339, ENSMUSG00000048806, ENSMUSG00000042345, ENSMUSG00000042726, ENSMUSG00000030111	1	7	ENSMUSG00000020889, ENSMUSG00000063632, ENSMUSG00000042812, ENSMUSG00000024653, ENSMUSG00000024028, ENSMUSG00000026874, ENSMUSG00000017697
GO:0045343	regulation of MHC class I biosynthetic process	0.00103639 4	5	ENSMUSG00000022504, ENSMUSG00000074151, ENSMUSG00000078817, ENSMUSG00000036986, ENSMUSG00000075404	1	0	
GO:0042832	defense response to protozoan	1.23E-16	15	ENSMUSG00000055170, ENSMUSG00000028269, ENSMUSG00000069874, ENSMUSG00000041515, ENSMUSG00000079362, ENSMUSG00000028268, ENSMUSG00000040253, ENSMUSG00000054588,	1	0	

				ENSMUSG00000028270, ENSMUSG00000025746, ENSMUSG00000029298, ENSMUSG00000054072, ENSMUSG00000004296, ENSMUSG00000053175, ENSMUSG00000026177			
GO:0050865	regulation of cell activation	8.78E-09	40	ENSMUSG00000036931, ENSMUSG00000040528, ENSMUSG00000073412, ENSMUSG00000049103, ENSMUSG00000016529, ENSMUSG00000038179, ENSMUSG00000035385, ENSMUSG00000075122, ENSMUSG00000028874, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000020053, ENSMUSG00000034652, ENSMUSG00000027398, ENSMUSG00000031551, ENSMUSG00000026770, ENSMUSG00000025473, ENSMUSG00000016496, ENSMUSG00000044701, ENSMUSG00000055170, ENSMUSG0000001444, ENSMUSG00000027843, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000058715, ENSMUSG00000071552, ENSMUSG00000026573, ENSMUSG00000004296, ENSMUSG00000000791, ENSMUSG00000022901, ENSMUSG00000026656, ENSMUSG00000029075, ENSMUSG00000037440, ENSMUSG00000030124, ENSMUSG00000016498, ENSMUSG00000022876, ENSMUSG00000024397, ENSMUSG00000026580, ENSMUSG00000048806, ENSMUSG00000025746	1	8	ENSMUSG00000042812, ENSMUSG00000059201, ENSMUSG00000025889, ENSMUSG00000024653, ENSMUSG00000017697, ENSMUSG00000063632, ENSMUSG00000024028, ENSMUSG00000026532
GO:0043462	regulation of ATPase activity	1	0		0.000619567	9	ENSMUSG00000019478, ENSMUSG00000061723, ENSMUSG00000035458, ENSMUSG00000061086,

							ENSMUSG00000032366, ENSMUSG00000091898, ENSMUSG00000021909, ENSMUSG00000028307, ENSMUSG00000040752
GO:0040011	locomotion	0.00936050 7	51	ENSMUSG00000035352, ENSMUSG00000048534, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000071005, ENSMUSG00000009185, ENSMUSG00000049103, ENSMUSG00000074115, ENSMUSG00000028613, ENSMUSG00000035385, ENSMUSG00000017724, ENSMUSG00000000392, ENSMUSG00000050232, ENSMUSG00000026166, ENSMUSG00000028072, ENSMUSG00000018930, ENSMUSG00000030786, ENSMUSG00000000247, ENSMUSG00000025804, ENSMUSG00000027398, ENSMUSG00000034855, ENSMUSG00000026890, ENSMUSG00000025473, ENSMUSG00000029005, ENSMUSG00000055170, ENSMUSG00000018920, ENSMUSG00000050957, ENSMUSG00000001444, ENSMUSG00000035042, ENSMUSG00000056529, ENSMUSG00000058715, ENSMUSG00000070691, ENSMUSG00000030525, ENSMUSG00000040552, ENSMUSG00000030077, ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000000982, ENSMUSG00000004296, ENSMUSG00000029304, ENSMUSG00000020310, ENSMUSG00000023078, ENSMUSG00000026582, ENSMUSG00000021614, ENSMUSG00000024401, ENSMUSG00000026580,	1	32	ENSMUSG00000031380, ENSMUSG00000030302, ENSMUSG00000025810, ENSMUSG00000032547, ENSMUSG00000052911, ENSMUSG00000031841, ENSMUSG00000041012, ENSMUSG00000041688, ENSMUSG00000026874, ENSMUSG00000021055, ENSMUSG00000031253, ENSMUSG00000089865, ENSMUSG00000064201, ENSMUSG00000001948, ENSMUSG00000001300, ENSMUSG00000032216, ENSMUSG00000032064, ENSMUSG00000029193, ENSMUSG00000013076, ENSMUSG00000059201, ENSMUSG00000019326, ENSMUSG00000062380, ENSMUSG00000032911, ENSMUSG00000000889, ENSMUSG00000032083, ENSMUSG00000015405, ENSMUSG00000020052, ENSMUSG00000031780, ENSMUSG00000054196, ENSMUSG00000059481, ENSMUSG00000023235, ENSMUSG00000010047



				ENSMUSG00000037868, ENSMUSG00000029380, ENSMUSG00000041347, ENSMUSG00000079700, ENSMUSG00000033952			
GO:0006082	organic acid metabolic process	1	13	ENSMUSG00000030268, ENSMUSG00000038963, ENSMUSG0000003484, ENSMUSG00000037440, ENSMUSG00000017146, ENSMUSG00000039519, ENSMUSG00000050370, ENSMUSG00000021266, ENSMUSG00000018907, ENSMUSG00000027199, ENSMUSG00000022126, ENSMUSG00000031551, ENSMUSG00000020010	0.000117827	56	ENSMUSG00000037686, ENSMUSG00000032263, ENSMUSG00000033327, ENSMUSG00000032262, ENSMUSG00000025889, ENSMUSG00000062515, ENSMUSG00000020182, ENSMUSG00000046402, ENSMUSG0000002588, ENSMUSG00000002010, ENSMUSG0000004038, ENSMUSG00000032310, ENSMUSG00000032418, ENSMUSG00000027513, ENSMUSG00000032807, ENSMUSG00000032279, ENSMUSG00000067653, ENSMUSG00000019278, ENSMUSG00000074183, ENSMUSG00000037071, ENSMUSG00000029361, ENSMUSG00000032348, ENSMUSG00000025202, ENSMUSG00000025153, ENSMUSG00000057880, ENSMUSG00000073424, ENSMUSG00000002769, ENSMUSG00000022878, ENSMUSG00000078597, ENSMUSG00000030399, ENSMUSG00000032349, ENSMUSG00000059201, ENSMUSG00000066072, ENSMUSG00000021622, ENSMUSG0000004885, ENSMUSG00000024039, ENSMUSG00000030972, ENSMUSG00000040181, ENSMUSG00000058135, ENSMUSG00000000168, ENSMUSG00000031299, ENSMUSG00000025991, ENSMUSG00000032315, ENSMUSG00000027820, ENSMUSG00000090150, ENSMUSG00000022040,

							ENSMUSG00000075217, ENSMUSG00000028167, ENSMUSG00000031425, ENSMUSG00000024892, ENSMUSG00000029695, ENSMUSG00000041220, ENSMUSG00000035202, ENSMUSG00000050195, ENSMUSG00000020532, ENSMUSG00000027380
GO:0008217	regulation of blood pressure	1	5	ENSMUSG00000030525, ENSMUSG00000040552, ENSMUSG00000041347, ENSMUSG00000031891, ENSMUSG00000054136	0.001486769	20	ENSMUSG00000020123, ENSMUSG00000035458, ENSMUSG00000059201, ENSMUSG00000032366, ENSMUSG00000019326, ENSMUSG00000041616, ENSMUSG00000001865, ENSMUSG00000061068, ENSMUSG00000022040, ENSMUSG00000031489, ENSMUSG00000015405, ENSMUSG00000022206, ENSMUSG00000029019, ENSMUSG00000029361, ENSMUSG00000037010, ENSMUSG00000031980, ENSMUSG00000057880, ENSMUSG00000022878, ENSMUSG00000024027, ENSMUSG00000040752
GO:0052033	pathogen-associated molecular pattern dependent induction by symbiont of host innate immune response	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	
GO:0002218	activation of innate immune response	0.00017316 6	11	ENSMUSG00000027995, ENSMUSG00000050241, ENSMUSG00000045322, ENSMUSG00000030413, ENSMUSG00000055994, ENSMUSG00000024349, ENSMUSG00000030149, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000025473, ENSMUSG00000022901	1	0	
GO:0043903	regulation of symbiosis,	9.75E-06	10	ENSMUSG00000055170, ENSMUSG00000027995,	1	0	

	encompassing mutualism through parasitism			ENSMUSG00000029371, ENSMUSG00000041515, ENSMUSG00000055994, ENSMUSG00000024401, ENSMUSG00000038357, ENSMUSG00000016529, ENSMUSG0000004296, ENSMUSG00000079227			
GO:0071222	cellular response to lipopolysaccharide	3.29E-08	17	ENSMUSG00000055170, ENSMUSG00000026104, ENSMUSG00000079362, ENSMUSG00000035042, ENSMUSG00000030149, ENSMUSG00000028270, ENSMUSG00000051439, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG0000004296, ENSMUSG00000020638, ENSMUSG00000041515, ENSMUSG00000024401, ENSMUSG00000054588, ENSMUSG00000027398, ENSMUSG00000059089, ENSMUSG00000053219	1	0	
GO:0090316	positive regulation of intracellular protein transport	0.00860501 3	13	ENSMUSG00000019942, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000071005, ENSMUSG00000024401, ENSMUSG00000027699, ENSMUSG00000024349, ENSMUSG00000040296, ENSMUSG00000020053, ENSMUSG00000044583, ENSMUSG00000025746, ENSMUSG00000027398, ENSMUSG00000078817	1	3	ENSMUSG00000059201, ENSMUSG00000059327, ENSMUSG00000010047
GO:0002252	immune effector process	1.57E-21	47	ENSMUSG00000027832, ENSMUSG00000040613, ENSMUSG00000036905, ENSMUSG00000040528, ENSMUSG00000027995, ENSMUSG00000036887, ENSMUSG00000035673, ENSMUSG00000029417, ENSMUSG00000066861, ENSMUSG00000037202, ENSMUSG00000015437, ENSMUSG00000053977,	1	6	ENSMUSG00000046834, ENSMUSG00000000889, ENSMUSG00000061780, ENSMUSG00000034783, ENSMUSG00000026874, ENSMUSG00000017697

				<p>ENSMUSG00000032691, ENSMUSG00000020641,  ENSMUSG00000034652, ENSMUSG00000046718,  ENSMUSG00000051498, ENSMUSG00000027639,  ENSMUSG00000034855, ENSMUSG00000055170,  ENSMUSG00000045322, ENSMUSG00000025492,  ENSMUSG00000092005, ENSMUSG00000040751,  ENSMUSG00000055994, ENSMUSG00000039748,  ENSMUSG00000058715, ENSMUSG00000024349,  ENSMUSG00000040627, ENSMUSG00000026573,  ENSMUSG00000024371, ENSMUSG00000000982,  ENSMUSG00000004296, ENSMUSG00000076612,  ENSMUSG00000055172, ENSMUSG00000053175,  ENSMUSG00000015947, ENSMUSG00000022901,  ENSMUSG00000025498, ENSMUSG00000026656,  ENSMUSG00000032661, ENSMUSG00000090231,  ENSMUSG00000058818, ENSMUSG00000048806,  ENSMUSG00000025746, ENSMUSG00000044583,  ENSMUSG00000026177</p>			
GO:0052305	<p>positive regulation by  organism of innate immune  response in other organism  involved in symbiotic  interaction</p>	<p>0.00351362  7</p>	5	<p>ENSMUSG00000027995, ENSMUSG00000045322,  ENSMUSG00000044583, ENSMUSG00000051498,  ENSMUSG00000055994</p>	1	0	
GO:0006959	humoral immune response	7.09E-05	14	<p>ENSMUSG00000005696, ENSMUSG00000055170,  ENSMUSG00000036905, ENSMUSG00000036887,  ENSMUSG00000092005, ENSMUSG00000039748,</p>	1	3	<p>ENSMUSG00000046834, ENSMUSG00000061780,  ENSMUSG00000026874</p>

				ENSMUSG00000024401, ENSMUSG00000090231, ENSMUSG00000048806, ENSMUSG00000024371, ENSMUSG00000049103, ENSMUSG00000076612, ENSMUSG00000055172, ENSMUSG00000053175			
GO:0050896	response to stimulus	1.48E-08	324	ENSMUSG00000034206, ENSMUSG00000036931, ENSMUSG00000035692, ENSMUSG00000048534, ENSMUSG00000036887, ENSMUSG00000041481, ENSMUSG00000066861, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000053977, ENSMUSG00000075404, ENSMUSG00000019942, ENSMUSG00000030268, ENSMUSG00000021190, ENSMUSG00000000817, ENSMUSG00000030786, ENSMUSG00000040296, ENSMUSG00000020053, ENSMUSG00000040264, ENSMUSG00000030144, ENSMUSG00000035365, ENSMUSG00000042489, ENSMUSG00000025473, ENSMUSG00000038037, ENSMUSG00000030954, ENSMUSG00000055994, ENSMUSG00000026896, ENSMUSG00000000982, ENSMUSG00000038067, ENSMUSG00000037474, ENSMUSG00000023913, ENSMUSG00000020897, ENSMUSG00000063660, ENSMUSG00000029075, ENSMUSG00000028068, ENSMUSG00000039315, ENSMUSG00000038418, ENSMUSG00000079014, ENSMUSG00000045381, ENSMUSG00000039396, ENSMUSG00000035352, ENSMUSG00000060747, ENSMUSG00000038209, ENSMUSG00000029377,	1	228	ENSMUSG00000030302, ENSMUSG00000032547, ENSMUSG00000074254, ENSMUSG00000025889, ENSMUSG00000062270, ENSMUSG00000046532, ENSMUSG00000051596, ENSMUSG00000007122, ENSMUSG00000059230, ENSMUSG00000026715, ENSMUSG00000090877, ENSMUSG00000025888, ENSMUSG00000037188, ENSMUSG00000090639, ENSMUSG00000032549, ENSMUSG00000061393, ENSMUSG00000021909, ENSMUSG00000033208, ENSMUSG00000033350, ENSMUSG00000034910, ENSMUSG0000007033, ENSMUSG00000027513, ENSMUSG00000029195, ENSMUSG00000032449, ENSMUSG00000043496, ENSMUSG00000010051, ENSMUSG00000074183, ENSMUSG00000017697, ENSMUSG00000036867, ENSMUSG00000057933, ENSMUSG00000037010, ENSMUSG00000032348, ENSMUSG00000038967, ENSMUSG00000032076, ENSMUSG00000024027, ENSMUSG00000042812, ENSMUSG00000034768, ENSMUSG00000022868, ENSMUSG00000052974, ENSMUSG00000062380, ENSMUSG00000031214, ENSMUSG00000026984, ENSMUSG00000035486, ENSMUSG00000041616,

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GO:0002706	regulation of lymphocyte mediated immunity	1.71E-11	24	ENSMUSG0000005696, ENSMUSG00000055170, ENSMUSG00000060802, ENSMUSG00000001444, ENSMUSG00000055994, ENSMUSG00000058715, ENSMUSG00000030149, ENSMUSG00000026573, ENSMUSG00000061232, ENSMUSG00000073406, ENSMUSG00000004296, ENSMUSG00000015947, ENSMUSG00000073411, ENSMUSG00000026656, ENSMUSG00000050241, ENSMUSG00000030124, ENSMUSG00000079620, ENSMUSG00000079298, ENSMUSG00000024401, ENSMUSG00000024339, ENSMUSG00000048806, ENSMUSG00000030895, ENSMUSG00000037321, ENSMUSG00000067212	1	2	ENSMUSG00000090877, ENSMUSG00000032076
GO:0070201	regulation of establishment of protein localization	0.00082250 1	29	ENSMUSG00000030142, ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000055994, ENSMUSG00000022548, ENSMUSG00000071005, ENSMUSG00000027699,	1	13	ENSMUSG00000024990, ENSMUSG00000034584, ENSMUSG00000031495, ENSMUSG00000059201, ENSMUSG00000032083, ENSMUSG00000046532, ENSMUSG00000062778, ENSMUSG00000059327,

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GO:0006936	muscle contraction	1	0		1.20E-09	24	ENSMUSG00000064179, ENSMUSG00000035458, ENSMUSG00000032366, ENSMUSG00000027470, ENSMUSG00000033196, ENSMUSG00000057003, ENSMUSG00000091898, ENSMUSG00000053093, ENSMUSG00000021909, ENSMUSG00000006457, ENSMUSG00000017300, ENSMUSG00000061816, ENSMUSG00000061723, ENSMUSG00000031097, ENSMUSG00000061086, ENSMUSG00000020216, ENSMUSG00000020623, ENSMUSG00000020061, ENSMUSG00000059741, ENSMUSG00000052374, ENSMUSG00000029361, ENSMUSG00000031980, ENSMUSG00000040752, ENSMUSG00000020475
GO:0071216	cellular response to biotic stimulus	9.84E-11	22	ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000026104, ENSMUSG00000079362, ENSMUSG00000035042, ENSMUSG00000055994,	1	0	

				ENSMUSG00000030149, ENSMUSG00000028270, ENSMUSG00000051439, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000004296, ENSMUSG00000026656, ENSMUSG00000020638, ENSMUSG00000041515, ENSMUSG00000044827, ENSMUSG00000024401, ENSMUSG00000054588, ENSMUSG00000027398, ENSMUSG00000051498, ENSMUSG00000059089, ENSMUSG00000053219			
GO:0001914	regulation of T cell mediated cytotoxicity	0.00018032	9	ENSMUSG00000073411, ENSMUSG00000060802, ENSMUSG00000079620, ENSMUSG00000024339, ENSMUSG00000026573, ENSMUSG00000061232, ENSMUSG00000037321, ENSMUSG00000004296, ENSMUSG00000067212	1	0	
GO:0044130	negative regulation of growth of symbiont in host	0.00049450 7	8	ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000041515, ENSMUSG00000055994, ENSMUSG00000024401, ENSMUSG00000038357, ENSMUSG00000016529, ENSMUSG00000004296	1	0	
GO:0050708	regulation of protein secretion	0.00057050 9	18	ENSMUSG00000030142, ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000055994, ENSMUSG00000051439, ENSMUSG00000074115, ENSMUSG00000016529, ENSMUSG00000000982, ENSMUSG00000032691, ENSMUSG00000030793, ENSMUSG00000029075, ENSMUSG00000028874, ENSMUSG00000029915, ENSMUSG00000024401, ENSMUSG00000025746, ENSMUSG00000044811, ENSMUSG00000078817, ENSMUSG00000079227	1	9	ENSMUSG00000024990, ENSMUSG00000034584, ENSMUSG00000031495, ENSMUSG00000032083, ENSMUSG00000062778, ENSMUSG00000026874, ENSMUSG00000032076, ENSMUSG00000024526, ENSMUSG00000010047

GO:0042993	positive regulation of transcription factor import into nucleus	0.00090214 5	9	ENSMUSG00000027995, ENSMUSG000000045322, ENSMUSG00000071005, ENSMUSG00000024401, ENSMUSG00000024349, ENSMUSG00000040296, ENSMUSG00000044583, ENSMUSG00000027398, ENSMUSG00000078817	1	0	
GO:0052555	positive regulation by organism of immune response of other organism involved in symbiotic interaction	0.00351362 7	5	ENSMUSG00000027995, ENSMUSG000000045322, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000055994	1	0	
GO:0032755	positive regulation of interleukin-6 production	0.00605043 7	9	ENSMUSG00000027995, ENSMUSG000000045322, ENSMUSG00000055994, ENSMUSG00000024401, ENSMUSG00000058715, ENSMUSG00000044583, ENSMUSG00000025746, ENSMUSG00000027398, ENSMUSG00000079227	1	0	
GO:0000087	M phase of mitotic cell cycle	4.20E-19	49	ENSMUSG00000017716, ENSMUSG00000015880, ENSMUSG00000024791, ENSMUSG00000050107, ENSMUSG00000045273, ENSMUSG00000024989, ENSMUSG00000026605, ENSMUSG00000068744, ENSMUSG00000019942, ENSMUSG000000045328, ENSMUSG00000006398, ENSMUSG00000028873, ENSMUSG0000002055, ENSMUSG00000027379, ENSMUSG00000024056, ENSMUSG00000027469, ENSMUSG00000027331, ENSMUSG00000027715, ENSMUSG00000029414, ENSMUSG00000044201, ENSMUSG00000026683, ENSMUSG00000023505,	1	6	ENSMUSG00000007815, ENSMUSG00000025862, ENSMUSG00000001403, ENSMUSG00000062380, ENSMUSG00000031176, ENSMUSG00000036782

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GO:0045089	positive regulation of innate immune response	3.21E-06	16	ENSMUSG0000005696, ENSMUSG00000027995, ENSMUSG00000050241, ENSMUSG00000045322, ENSMUSG00000030413, ENSMUSG00000030124, ENSMUSG00000055994, ENSMUSG00000030149, ENSMUSG00000029377, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000044583, ENSMUSG00000051498, ENSMUSG00000004296, ENSMUSG00000025473, ENSMUSG00000022901	1	2	ENSMUSG00000043496, ENSMUSG00000032076
GO:0001910	regulation of leukocyte mediated cytotoxicity	3.68E-09	16	ENSMUSG0000005696, ENSMUSG00000060802, ENSMUSG00000030149, ENSMUSG00000026573, ENSMUSG00000061232, ENSMUSG00000073406, ENSMUSG00000004296, ENSMUSG00000073411,	1	2	ENSMUSG00000090877, ENSMUSG00000032076

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GO:0000279	M phase	3.61E-17	58	ENSMUSG00000017716, ENSMUSG00000015880, ENSMUSG00000024791, ENSMUSG00000050107, ENSMUSG00000045273, ENSMUSG00000024989, ENSMUSG00000029377, ENSMUSG00000026605, ENSMUSG00000068744, ENSMUSG00000019942, ENSMUSG00000045328, ENSMUSG00000006398, ENSMUSG00000031004, ENSMUSG00000028873, ENSMUSG00000002055, ENSMUSG00000033644, ENSMUSG00000027379, ENSMUSG00000024056, ENSMUSG00000027469, ENSMUSG00000027331, ENSMUSG00000027715, ENSMUSG00000036912, ENSMUSG00000029414, ENSMUSG00000044201, ENSMUSG00000026683, ENSMUSG00000023505, ENSMUSG00000050957, ENSMUSG00000039748, ENSMUSG00000026039, ENSMUSG00000041431, ENSMUSG00000040084, ENSMUSG00000036223, ENSMUSG00000027306, ENSMUSG00000037313, ENSMUSG00000024795, ENSMUSG00000023015, ENSMUSG00000069910, ENSMUSG00000025001, ENSMUSG00000048922, ENSMUSG00000051378, ENSMUSG00000020897, ENSMUSG00000031898, ENSMUSG00000017499, ENSMUSG00000071350,	1	7	ENSMUSG00000007815, ENSMUSG00000025862, ENSMUSG00000001403, ENSMUSG00000062380, ENSMUSG00000071470, ENSMUSG00000031176, ENSMUSG000000036782



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GO:0046649	lymphocyte activation	1.24E-05	32	ENSMUSG00000060802, ENSMUSG00000074148, ENSMUSG00000071005, ENSMUSG00000071068, ENSMUSG00000018899, ENSMUSG00000053977, ENSMUSG00000028072, ENSMUSG00000062007, ENSMUSG00000030786, ENSMUSG00000059089, ENSMUSG00000028362, ENSMUSG00000068227, ENSMUSG00000055170, ENSMUSG00000001444, ENSMUSG00000027843, ENSMUSG00000040751, ENSMUSG00000039748, ENSMUSG00000030525, ENSMUSG00000030149, ENSMUSG00000040627, ENSMUSG00000026573, ENSMUSG00000004296, ENSMUSG00000053175, ENSMUSG00000025001, ENSMUSG00000022901, ENSMUSG00000050241, ENSMUSG00000029075, ENSMUSG00000034116, ENSMUSG00000038418, ENSMUSG00000025746, ENSMUSG00000049109, ENSMUSG00000026177	1	2	ENSMUSG00000061311, ENSMUSG00000017697
GO:0042129	regulation of T cell proliferation	1.91E-05	19	ENSMUSG00000016496, ENSMUSG00000044701, ENSMUSG00000055170, ENSMUSG00000035042, ENSMUSG00000026573, ENSMUSG00000049103,	1	2	ENSMUSG00000024653, ENSMUSG00000026532

				ENSMUSG0000004296, ENSMUSG00000000791, ENSMUSG00000022901, ENSMUSG00000075122, ENSMUSG00000016498, ENSMUSG00000030365, ENSMUSG00000024397, ENSMUSG00000026011, ENSMUSG00000025746, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000031551, ENSMUSG00000026770			
GO:0048585	negative regulation of response to stimulus	0.00259298 7	51	ENSMUSG00000036931, ENSMUSG00000074151, ENSMUSG00000046845, ENSMUSG00000049103, ENSMUSG00000018899, ENSMUSG00000024696, ENSMUSG00000016529, ENSMUSG00000073406, ENSMUSG00000035385, ENSMUSG00000004952, ENSMUSG00000026011, ENSMUSG00000025804, ENSMUSG00000020053, ENSMUSG00000027398, ENSMUSG00000037321, ENSMUSG00000035365, ENSMUSG00000034459, ENSMUSG00000030921, ENSMUSG00000026770, ENSMUSG00000029005, ENSMUSG00000038037, ENSMUSG00000045322, ENSMUSG00000026104, ENSMUSG00000027368, ENSMUSG00000027843, ENSMUSG00000022548, ENSMUSG00000055994, ENSMUSG00000035042, ENSMUSG00000030525, ENSMUSG00000026573, ENSMUSG00000021322, ENSMUSG00000026475, ENSMUSG00000004296, ENSMUSG00000026981, ENSMUSG00000026656, ENSMUSG00000050241, ENSMUSG00000034394, ENSMUSG00000079298,	1	31	ENSMUSG00000042812, ENSMUSG00000025810, ENSMUSG00000032547, ENSMUSG00000055653, ENSMUSG00000059201, ENSMUSG00000022868, ENSMUSG00000046818, ENSMUSG00000025889, ENSMUSG00000055980, ENSMUSG00000026984, ENSMUSG00000032558, ENSMUSG00000026715, ENSMUSG00000007815, ENSMUSG00000039952, ENSMUSG00000021319, ENSMUSG00000001494, ENSMUSG00000026983, ENSMUSG00000024028, ENSMUSG00000026874, ENSMUSG00000021055, ENSMUSG00000059495, ENSMUSG00000020889, ENSMUSG00000032422, ENSMUSG00000032216, ENSMUSG00000017697, ENSMUSG00000036867, ENSMUSG00000054196, ENSMUSG00000031980, ENSMUSG00000040289, ENSMUSG00000022878, ENSMUSG00000010047

				ENSMUSG00000079620, ENSMUSG00000026358, ENSMUSG00000039519, ENSMUSG00000021765, ENSMUSG00000038418, ENSMUSG00000022876, ENSMUSG00000024339, ENSMUSG00000048806, ENSMUSG00000042345, ENSMUSG00000042726, ENSMUSG00000078817, ENSMUSG00000030111, ENSMUSG00000053113			
GO:0048518	positive regulation of biological process	1.40E-11	199	ENSMUSG00000017716, ENSMUSG00000033538, ENSMUSG00000036931, ENSMUSG00000027995, ENSMUSG00000036887, ENSMUSG00000027699, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000053977, ENSMUSG00000075404, ENSMUSG00000019942, ENSMUSG00000022831, ENSMUSG00000020848, ENSMUSG00000000817, ENSMUSG00000033644, ENSMUSG00000022504, ENSMUSG00000001123, ENSMUSG00000028071, ENSMUSG00000040296, ENSMUSG00000000247, ENSMUSG00000020053, ENSMUSG00000037321, ENSMUSG00000027715, ENSMUSG00000031551, ENSMUSG00000025473, ENSMUSG00000030142, ENSMUSG00000045322, ENSMUSG00000001444, ENSMUSG00000002992, ENSMUSG00000055994, ENSMUSG00000024353, ENSMUSG00000001228, ENSMUSG00000030149, ENSMUSG00000041431, ENSMUSG00000000982, ENSMUSG00000029304, ENSMUSG00000038067, ENSMUSG00000053175,	1	135	ENSMUSG00000039956, ENSMUSG00000021506, ENSMUSG00000030302, ENSMUSG00000032547, ENSMUSG00000025889, ENSMUSG00000046532, ENSMUSG00000054422, ENSMUSG00000023328, ENSMUSG00000090877, ENSMUSG00000002588, ENSMUSG00000037188, ENSMUSG00000090639, ENSMUSG00000061393, ENSMUSG00000071317, ENSMUSG00000033208, ENSMUSG00000034910, ENSMUSG00000029195, ENSMUSG00000043496, ENSMUSG00000010051, ENSMUSG00000017697, ENSMUSG00000036867, ENSMUSG00000049641, ENSMUSG00000037010, ENSMUSG00000051234, ENSMUSG00000032076, ENSMUSG00000008035, ENSMUSG00000024027, ENSMUSG00000042812, ENSMUSG00000034584, ENSMUSG00000022868, ENSMUSG00000027470, ENSMUSG00000035486, ENSMUSG00000041624, ENSMUSG00000032315, ENSMUSG00000059327, ENSMUSG00000032491, ENSMUSG00000023013, ENSMUSG00000032083,

			ENSMUSG0000002307, ENSMUSG00000026656, ENSMUSG00000023913, ENSMUSG00000020897, ENSMUSG00000029075, ENSMUSG00000030124, ENSMUSG00000017499, ENSMUSG00000026582, ENSMUSG00000028068, ENSMUSG00000022221, ENSMUSG00000038418, ENSMUSG00000024079, ENSMUSG00000074151, ENSMUSG00000040613, ENSMUSG00000036905, ENSMUSG00000026822, ENSMUSG00000071005, ENSMUSG00000038209, ENSMUSG00000047517, ENSMUSG00000029377, ENSMUSG00000051439, ENSMUSG00000032691, ENSMUSG00000045328, ENSMUSG00000030413, ENSMUSG00000062007, ENSMUSG00000037725, ENSMUSG00000027398, ENSMUSG00000034459, ENSMUSG00000028362, ENSMUSG00000055170, ENSMUSG00000068227, ENSMUSG00000027843, ENSMUSG00000022838, ENSMUSG00000035042, ENSMUSG00000035186, ENSMUSG00000058715, ENSMUSG0000003555, ENSMUSG00000090125, ENSMUSG0000004296, ENSMUSG00000023015, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000023078, ENSMUSG00000041515, ENSMUSG00000037440, ENSMUSG00000034394, ENSMUSG00000039519, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000074622, ENSMUSG00000090231, ENSMUSG00000026580,		ENSMUSG00000059481, ENSMUSG00000042903, ENSMUSG00000054196, ENSMUSG00000031997, ENSMUSG00000031980, ENSMUSG00000040412, ENSMUSG00000031380, ENSMUSG00000030730, ENSMUSG00000032380, ENSMUSG00000046714, ENSMUSG00000031841, ENSMUSG00000032554, ENSMUSG00000033577, ENSMUSG00000021319, ENSMUSG00000031320, ENSMUSG00000024972, ENSMUSG00000041688, ENSMUSG0000005705, ENSMUSG00000022996, ENSMUSG00000074336, ENSMUSG00000032216, ENSMUSG00000020623, ENSMUSG00000001403, ENSMUSG00000029361, ENSMUSG00000038119, ENSMUSG00000019326, ENSMUSG0000005373, ENSMUSG00000025386, ENSMUSG00000000889, ENSMUSG00000021573, ENSMUSG00000062778, ENSMUSG00000058914, ENSMUSG00000020052, ENSMUSG00000010047, ENSMUSG00000020123, ENSMUSG00000009471, ENSMUSG00000017204, ENSMUSG00000031495, ENSMUSG00000062515, ENSMUSG00000032511, ENSMUSG00000020524, ENSMUSG00000044820, ENSMUSG00000026874, ENSMUSG00000039004, ENSMUSG00000031253, ENSMUSG00000019102, ENSMUSG00000031760, ENSMUSG00000032839, ENSMUSG00000037071, ENSMUSG00000044405, ENSMUSG00000026459, ENSMUSG00000029193,
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				ENSMUSG00000050241, ENSMUSG00000030793, ENSMUSG0000003283, ENSMUSG00000078236, ENSMUSG00000030867, ENSMUSG00000016498, ENSMUSG00000044138, ENSMUSG00000022622, ENSMUSG00000024397, ENSMUSG00000048806, ENSMUSG00000044583, ENSMUSG00000029380, ENSMUSG00000078817, ENSMUSG00000033952, ENSMUSG00000021451, ENSMUSG00000027832, ENSMUSG00000025044, ENSMUSG00000074148, ENSMUSG00000031444, ENSMUSG00000074115, ENSMUSG00000029378, ENSMUSG00000035385, ENSMUSG00000073411, ENSMUSG00000023132, ENSMUSG00000017146, ENSMUSG00000075122, ENSMUSG00000028874, ENSMUSG00000029915, ENSMUSG00000073489, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000079227, ENSMUSG00000049608, ENSMUSG00000035683, ENSMUSG00000041324, ENSMUSG00000067212, ENSMUSG00000024014, ENSMUSG00000057135, ENSMUSG00000028602, ENSMUSG00000026104, ENSMUSG00000092005, ENSMUSG00000071552, ENSMUSG00000024349, ENSMUSG00000026573, ENSMUSG00000020310, ENSMUSG00000024798, ENSMUSG00000022901, ENSMUSG00000021886, ENSMUSG00000045471, ENSMUSG00000044827, ENSMUSG00000034116, ENSMUSG00000021765,			
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				ENSMUSG00000024339, ENSMUSG00000020649, ENSMUSG00000041347, ENSMUSG00000026177, ENSMUSG00000054136			
GO:2000503	positive regulation of natural killer cell chemotaxis	0.00017833	5	ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000018930, ENSMUSG0000000982, ENSMUSG00000035042	1	0	
GO:0051246	regulation of protein metabolic process	0.00193014 5	80	ENSMUSG00000058755, ENSMUSG00000027995, ENSMUSG00000066363, ENSMUSG00000021403, ENSMUSG00000041481, ENSMUSG00000027699, ENSMUSG00000049103, ENSMUSG00000018899, ENSMUSG00000016529, ENSMUSG00000028613, ENSMUSG00000006398, ENSMUSG00000022831, ENSMUSG00000058207, ENSMUSG00000033644, ENSMUSG00000061947, ENSMUSG00000020053, ENSMUSG00000030895, ENSMUSG00000051498, ENSMUSG00000021091, ENSMUSG00000027715, ENSMUSG00000030921, ENSMUSG00000036912, ENSMUSG00000042489, ENSMUSG00000025473, ENSMUSG00000044701, ENSMUSG00000038037, ENSMUSG00000045322, ENSMUSG00000027368, ENSMUSG00000055994, ENSMUSG00000022548, ENSMUSG00000001228, ENSMUSG00000030525, ENSMUSG00000041431, ENSMUSG00000038357, ENSMUSG00000002307, ENSMUSG00000053175, ENSMUSG00000041536, ENSMUSG00000002068, ENSMUSG00000029075, ENSMUSG00000001131,	1	46	ENSMUSG00000025810, ENSMUSG00000033327, ENSMUSG00000040488, ENSMUSG00000025889, ENSMUSG00000062515, ENSMUSG00000026715, ENSMUSG00000001865, ENSMUSG00000090639, ENSMUSG00000032554, ENSMUSG00000031320, ENSMUSG00000061393, ENSMUSG00000039004, ENSMUSG00000033208, ENSMUSG00000031996, ENSMUSG00000089865, ENSMUSG00000020427, ENSMUSG00000022996, ENSMUSG00000031760, ENSMUSG00000058260, ENSMUSG00000055561, ENSMUSG00000032216, ENSMUSG00000073601, ENSMUSG00000020623, ENSMUSG00000036867, ENSMUSG00000029361, ENSMUSG00000073465, ENSMUSG00000038119, ENSMUSG00000022878, ENSMUSG00000055653, ENSMUSG00000059201, ENSMUSG00000022868, ENSMUSG00000005373, ENSMUSG00000032911, ENSMUSG00000024039, ENSMUSG00000073602, ENSMUSG00000044594, ENSMUSG00000025386, ENSMUSG00000061068, ENSMUSG00000058017, ENSMUSG00000052305,

				<p>ENSMUSG00000030124, ENSMUSG00000030867,  ENSMUSG00000028068, ENSMUSG00000024397,  ENSMUSG00000022876, ENSMUSG00000038418,  ENSMUSG00000044583, ENSMUSG00000078817,  ENSMUSG00000021451, ENSMUSG00000071005,  ENSMUSG00000038209, ENSMUSG00000029377,  ENSMUSG00000045328, ENSMUSG00000075122,  ENSMUSG00000017146, ENSMUSG00000028874,  ENSMUSG00000030365, ENSMUSG00000027469,  ENSMUSG00000066364, ENSMUSG00000027398,  ENSMUSG00000024014, ENSMUSG00000055170,  ENSMUSG00000028602, ENSMUSG00000035042,  ENSMUSG00000004296, ENSMUSG00000026981,  ENSMUSG00000018486, ENSMUSG00000044827,  ENSMUSG00000045471, ENSMUSG00000034394,  ENSMUSG00000079012, ENSMUSG00000036986,  ENSMUSG00000024401, ENSMUSG00000025746,  ENSMUSG00000041347, ENSMUSG00000030111,  ENSMUSG00000053113, ENSMUSG00000066361,  ENSMUSG00000026177, ENSMUSG00000032218</p>			<p>ENSMUSG00000059956, ENSMUSG00000067006,  ENSMUSG00000026327, ENSMUSG00000032083,  ENSMUSG00000031980, ENSMUSG00000010047</p>
GO:0050704	regulation of interleukin-1 secretion	0.00214095 6	7	<p>ENSMUSG00000055170, ENSMUSG00000030793,  ENSMUSG00000000982, ENSMUSG00000079227,  ENSMUSG00000055994, ENSMUSG00000078817,  ENSMUSG00000032691</p>	1	0	
GO:0042346	positive regulation of NF-kappaB import into	0.00557237 3	7	<p>ENSMUSG00000027995, ENSMUSG00000045322,  ENSMUSG00000044583, ENSMUSG00000027398,</p>	1	0	



	nucleus			ENSMUSG00000078817, ENSMUSG00000071005, ENSMUSG00000024401			
GO:0002483	antigen processing and presentation of endogenous peptide antigen	0.00351362 7	5	ENSMUSG00000073411, ENSMUSG00000024339, ENSMUSG00000061232, ENSMUSG00000037321, ENSMUSG00000067212	1	0	
GO:0032655	regulation of interleukin-12 production	0.00012598	11	ENSMUSG00000055170, ENSMUSG00000027995, ENSMUSG00000045322, ENSMUSG00000041515, ENSMUSG00000055994, ENSMUSG00000071552, ENSMUSG00000051498, ENSMUSG00000018899, ENSMUSG00000016529, ENSMUSG00000004296, ENSMUSG00000031551	1	0	
<b>Molecular Function</b>							
GO: 0004 896	cytokine receptor activity	0.00749213 5	12	ENSMUSG00000030745, ENSMUSG00000068227, ENSMUSG00000050232, ENSMUSG00000026068, ENSMUSG00000071714, ENSMUSG00000025804, ENSMUSG00000049103, ENSMUSG00000079227, ENSMUSG00000004296, ENSMUSG00000071713, ENSMUSG00000026770, ENSMUSG00000026073	1	3	ENSMUSG00000006235, ENSMUSG00000041748, ENSMUSG000000079355
GO: 0005 102	receptor binding	4.59E-05	77	ENSMUSG00000066513, ENSMUSG00000058755, ENSMUSG00000009185, ENSMUSG00000016529, ENSMUSG00000045232, ENSMUSG00000028072, ENSMUSG00000018930, ENSMUSG00000000817, ENSMUSG00000078452, ENSMUSG00000020053, ENSMUSG00000000182, ENSMUSG00000029816, ENSMUSG00000037321, ENSMUSG00000034855, ENSMUSG00000079019, ENSMUSG00000025473,	1	61	ENSMUSG00000031380, ENSMUSG00000039956, ENSMUSG00000020123, ENSMUSG00000030302, ENSMUSG00000032547, ENSMUSG00000049556, ENSMUSG00000012705, ENSMUSG00000033831, ENSMUSG00000031312, ENSMUSG00000055980, ENSMUSG00000046532, ENSMUSG00000052911, ENSMUSG00000029236, ENSMUSG00000020524, ENSMUSG00000041012, ENSMUSG00000026983,

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GO: 0061 134	peptidase regulator activity	0.00664169 3	22	ENSMUSG00000017716, ENSMUSG00000074148, ENSMUSG00000029664, ENSMUSG00000066363, ENSMUSG00000021403, ENSMUSG00000041481, ENSMUSG00000059657, ENSMUSG00000068129, ENSMUSG00000041536, ENSMUSG00000030793, ENSMUSG00000023903, ENSMUSG0000001131, ENSMUSG00000020415, ENSMUSG00000058207, ENSMUSG00000079597, ENSMUSG00000079012, ENSMUSG00000061947, ENSMUSG00000066364, ENSMUSG00000021091, ENSMUSG00000030111, ENSMUSG00000066361, ENSMUSG00000051949	0.000154069	26	ENSMUSG00000025860, ENSMUSG00000055653, ENSMUSG00000022868, ENSMUSG00000025889, ENSMUSG00000073602, ENSMUSG00000026715, ENSMUSG00000044594, ENSMUSG00000058017, ENSMUSG00000039278, ENSMUSG00000026874, ENSMUSG00000059956, ENSMUSG00000067006, ENSMUSG00000023336, ENSMUSG00000031760, ENSMUSG00000026327, ENSMUSG00000028356, ENSMUSG00000030359, ENSMUSG00000058260, ENSMUSG00000055561, ENSMUSG00000022871, ENSMUSG00000019278, ENSMUSG00000070531, ENSMUSG00000073601, ENSMUSG00000027442, ENSMUSG00000031980, ENSMUSG00000015354
GO: 0005 515	protein binding	0.00011384 1	286	ENSMUSG00000017716, ENSMUSG00000036931, ENSMUSG00000035692, ENSMUSG00000031098, ENSMUSG00000048534, ENSMUSG00000049103, ENSMUSG00000028613, ENSMUSG00000053977, ENSMUSG00000075404, ENSMUSG00000019942, ENSMUSG00000030268, ENSMUSG00000020848, ENSMUSG00000000817, ENSMUSG00000030786, ENSMUSG00000040296, ENSMUSG00000020053,	0.040426745	283	ENSMUSG00000030302, ENSMUSG00000032263, ENSMUSG00000074254, ENSMUSG00000025889, ENSMUSG00000062270, ENSMUSG00000046532, ENSMUSG00000023328, ENSMUSG00000027849, ENSMUSG00000037188, ENSMUSG00000090639, ENSMUSG00000061393, ENSMUSG00000021909, ENSMUSG00000025172, ENSMUSG00000036551, ENSMUSG00000033208, ENSMUSG00000049536,

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GO: 0004 857	enzyme inhibitor activity	0.29335033 4	23	ENSMUSG00000017716, ENSMUSG00000038037, ENSMUSG00000074148, ENSMUSG00000029664, ENSMUSG00000066363, ENSMUSG00000021403, ENSMUSG0000002992, ENSMUSG00000041481, ENSMUSG00000059657, ENSMUSG00000068129, ENSMUSG00000041536, ENSMUSG00000001131, ENSMUSG00000020415, ENSMUSG00000058207, ENSMUSG00000079597, ENSMUSG00000079012, ENSMUSG00000025129, ENSMUSG00000061947, ENSMUSG00000066364, ENSMUSG00000021091, ENSMUSG00000030111, ENSMUSG00000066361, ENSMUSG00000051949	3.29E-05	33	ENSMUSG00000042045, ENSMUSG00000025889, ENSMUSG00000026715, ENSMUSG00000011632, ENSMUSG00000039278, ENSMUSG00000026874, ENSMUSG00000023336, ENSMUSG00000031760, ENSMUSG00000028356, ENSMUSG00000030359, ENSMUSG00000058260, ENSMUSG00000019278, ENSMUSG00000055561, ENSMUSG00000022871, ENSMUSG00000070531, ENSMUSG00000073601, ENSMUSG00000025860, ENSMUSG00000055653, ENSMUSG00000022868, ENSMUSG00000073602, ENSMUSG00000027077, ENSMUSG00000044594, ENSMUSG00000058017, ENSMUSG00000059956, ENSMUSG00000067006, ENSMUSG00000026327, ENSMUSG00000024653, ENSMUSG00000032081, ENSMUSG00000032083, ENSMUSG00000027442, ENSMUSG00000046814, ENSMUSG00000031980, ENSMUSG00000010047
GO: 0019 956	chemokine binding	0.00093265 9	6	ENSMUSG00000050232, ENSMUSG00000025804, ENSMUSG00000049103, ENSMUSG00000079227, ENSMUSG00000030111, ENSMUSG00000037872	1	0	
GO:	structural constituent of muscle	1	0		0.001776137	7	ENSMUSG00000030554, ENSMUSG00000039952,

0008 307							ENSMUSG00000030672, ENSMUSG00000053093, ENSMUSG00000045103, ENSMUSG00000007877, ENSMUSG00000040752
GO: 0020 037	heme binding	1	5	ENSMUSG0000003484, ENSMUSG00000003555, ENSMUSG00000030895, ENSMUSG00000031551, ENSMUSG00000039519	0.000182641	18	ENSMUSG00000003053, ENSMUSG00000074254, ENSMUSG00000066072, ENSMUSG00000052974, ENSMUSG00000024039, ENSMUSG00000018893, ENSMUSG00000032315, ENSMUSG00000032310, ENSMUSG0000006373, ENSMUSG00000052217, ENSMUSG00000028356, ENSMUSG00000075217, ENSMUSG00000021032, ENSMUSG00000029361, ENSMUSG00000066071, ENSMUSG00000055609, ENSMUSG00000052187, ENSMUSG00000073424
GO: 0005 125	cytokine activity	4.13E-15	38	ENSMUSG00000058755, ENSMUSG00000035352, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000071005, ENSMUSG00000060747, ENSMUSG00000029417, ENSMUSG00000009185, ENSMUSG00000046845, ENSMUSG00000016529, ENSMUSG00000029378, ENSMUSG00000035385, ENSMUSG00000026166, ENSMUSG00000030413, ENSMUSG00000018930, ENSMUSG00000000817, ENSMUSG00000027398, ENSMUSG00000030117, ENSMUSG00000034855, ENSMUSG00000028362, ENSMUSG00000041324, ENSMUSG00000044701, ENSMUSG00000055170, ENSMUSG00000018920, ENSMUSG00000035042, ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000029304,	1	7	ENSMUSG00000031780, ENSMUSG00000041012, ENSMUSG00000023235, ENSMUSG00000026983, ENSMUSG00000026984, ENSMUSG00000039004, ENSMUSG00000064057

				ENSMUSG0000004296, ENSMUSG00000000982, ENSMUSG00000038067, ENSMUSG00000023078, ENSMUSG00000029371, ENSMUSG00000034394, ENSMUSG00000024401, ENSMUSG00000048806, ENSMUSG00000025746, ENSMUSG00000029380			
GO: 0042 802	identical protein binding	1	41	ENSMUSG00000017716, ENSMUSG00000036905, ENSMUSG00000026628, ENSMUSG00000026822, ENSMUSG00000027699, ENSMUSG00000029811, ENSMUSG00000026605, ENSMUSG00000049103, ENSMUSG00000053977, ENSMUSG00000020185, ENSMUSG00000023132, ENSMUSG00000030268, ENSMUSG00000028072, ENSMUSG00000047230, ENSMUSG00000026222, ENSMUSG00000040296, ENSMUSG00000029366, ENSMUSG00000046718, ENSMUSG00000054072, ENSMUSG00000037321, ENSMUSG00000041324, ENSMUSG00000026104, ENSMUSG00000035042, ENSMUSG00000002992, ENSMUSG00000030149, ENSMUSG00000024349, ENSMUSG00000030525, ENSMUSG00000026573, ENSMUSG0000004296, ENSMUSG00000002307, ENSMUSG00000049734, ENSMUSG00000046179, ENSMUSG00000050241, ENSMUSG00000030793, ENSMUSG00000038943, ENSMUSG00000079298, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000024339, ENSMUSG00000040658, ENSMUSG00000026177	0.007162928	58	ENSMUSG00000031380, ENSMUSG00000030730, ENSMUSG00000031495, ENSMUSG00000032366, ENSMUSG00000025889, ENSMUSG00000040147, ENSMUSG00000023328, ENSMUSG00000035686, ENSMUSG00000032380, ENSMUSG00000047419, ENSMUSG00000027849, ENSMUSG00000020884, ENSMUSG00000031841, ENSMUSG00000002588, ENSMUSG00000032010, ENSMUSG00000021909, ENSMUSG00000006457, ENSMUSG000000061311, ENSMUSG00000004038, ENSMUSG00000033208, ENSMUSG00000031996, ENSMUSG00000047797, ENSMUSG00000031489, ENSMUSG00000028356, ENSMUSG00000031176, ENSMUSG00000006574, ENSMUSG00000044037, ENSMUSG00000032060, ENSMUSG00000032067, ENSMUSG00000029361, ENSMUSG00000032348, ENSMUSG00000038967, ENSMUSG00000068890, ENSMUSG00000057880, ENSMUSG00000032076, ENSMUSG00000022878, ENSMUSG00000040752, ENSMUSG00000013076, ENSMUSG00000023019, ENSMUSG00000019326, ENSMUSG00000060913, ENSMUSG00000024039,

						ENSMUSG00000058135, ENSMUSG00000091898, ENSMUSG00000053093, ENSMUSG00000025271, ENSMUSG00000031144, ENSMUSG00000032083, ENSMUSG00000030747, ENSMUSG00000058914, ENSMUSG00000020052, ENSMUSG00000022206, ENSMUSG00000006235, ENSMUSG00000025260, ENSMUSG00000052374, ENSMUSG00000032047, ENSMUSG00000032531, ENSMUSG00000028307
GO: 0031 406	carboxylic acid binding	1	2	ENSMUSG00000023045, ENSMUSG00000031551	0.00074326	23 ENSMUSG00000006675, ENSMUSG00000032374, ENSMUSG00000029368, ENSMUSG00000025889, ENSMUSG00000025270, ENSMUSG00000004885, ENSMUSG00000054422, ENSMUSG00000024039, ENSMUSG00000020182, ENSMUSG00000025991, ENSMUSG00000027513, ENSMUSG00000026691, ENSMUSG00000019278, ENSMUSG00000032216, ENSMUSG00000074183, ENSMUSG00000028773, ENSMUSG00000046814, ENSMUSG00000057933, ENSMUSG00000024892, ENSMUSG00000032348, ENSMUSG00000025153, ENSMUSG00000020532, ENSMUSG00000002769
GO: 0008 092	cytoskeletal protein binding	1	13	ENSMUSG00000068744, ENSMUSG00000017716, ENSMUSG00000028678, ENSMUSG00000002055, ENSMUSG00000030867, ENSMUSG00000032322, ENSMUSG00000024397, ENSMUSG00000036223, ENSMUSG00000022534, ENSMUSG00000027306, ENSMUSG00000079227, ENSMUSG00000023015,	1.63E-07	56 ENSMUSG00000068270, ENSMUSG00000032366, ENSMUSG00000025889, ENSMUSG00000055775, ENSMUSG00000033196, ENSMUSG00000057003, ENSMUSG00000020524, ENSMUSG00000039952, ENSMUSG00000033577, ENSMUSG00000021909, ENSMUSG00000006457, ENSMUSG00000025172,

				ENSMUSG00000022021			ENSMUSG00000052698, ENSMUSG00000027022, ENSMUSG00000031812, ENSMUSG00000056328, ENSMUSG00000061086, ENSMUSG00000067653, ENSMUSG00000066574, ENSMUSG00000032060, ENSMUSG00000028773, ENSMUSG00000032064, ENSMUSG0000007877, ENSMUSG00000060180, ENSMUSG0000001349, ENSMUSG00000026532, ENSMUSG00000040752, ENSMUSG00000064179, ENSMUSG00000035458, ENSMUSG00000031214, ENSMUSG00000027470, ENSMUSG00000089996, ENSMUSG0000001134, ENSMUSG00000007815, ENSMUSG00000091898, ENSMUSG00000014846, ENSMUSG00000053093, ENSMUSG00000050730, ENSMUSG00000021573, ENSMUSG00000068697, ENSMUSG00000023013, ENSMUSG00000061723, ENSMUSG00000031097, ENSMUSG00000039585, ENSMUSG00000033763, ENSMUSG00000045103, ENSMUSG00000035540, ENSMUSG00000038775, ENSMUSG00000024471, ENSMUSG00000059741, ENSMUSG00000030554, ENSMUSG00000041729, ENSMUSG00000026418, ENSMUSG00000052374, ENSMUSG00000049493, ENSMUSG00000028307
GO: 0030 414	peptidase inhibitor activity	0.00668696 3	20	ENSMUSG00000017716, ENSMUSG00000074148, ENSMUSG00000029664, ENSMUSG00000066363, ENSMUSG00000021403, ENSMUSG00000041481, ENSMUSG00000059657, ENSMUSG00000068129,	2.70E-05	25	ENSMUSG00000025860, ENSMUSG00000055653, ENSMUSG00000022868, ENSMUSG00000025889, ENSMUSG00000073602, ENSMUSG00000026715, ENSMUSG00000044594, ENSMUSG00000058017,

				ENSMUSG00000041536, ENSMUSG00000001131, ENSMUSG00000020415, ENSMUSG00000058207, ENSMUSG00000079597, ENSMUSG00000079012, ENSMUSG00000061947, ENSMUSG00000066364, ENSMUSG00000021091, ENSMUSG00000030111, ENSMUSG00000066361, ENSMUSG00000051949			ENSMUSG00000039278, ENSMUSG00000026874, ENSMUSG00000059956, ENSMUSG00000067006, ENSMUSG00000023336, ENSMUSG00000031760, ENSMUSG00000026327, ENSMUSG00000028356, ENSMUSG00000030359, ENSMUSG00000058260, ENSMUSG00000055561, ENSMUSG00000022871, ENSMUSG00000019278, ENSMUSG00000070531, ENSMUSG00000073601, ENSMUSG00000027442, ENSMUSG00000031980
GO: 0001 664	G-protein coupled receptor binding	0.00027070 5	24	ENSMUSG00000018920, ENSMUSG00000035352, ENSMUSG00000026104, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000035042, ENSMUSG00000071005, ENSMUSG00000009185, ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000074115, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000045232, ENSMUSG00000018486, ENSMUSG00000045471, ENSMUSG00000023078, ENSMUSG00000029371, ENSMUSG00000026166, ENSMUSG00000018930, ENSMUSG00000028971, ENSMUSG00000029380, ENSMUSG00000034855, ENSMUSG00000079019	1	17	ENSMUSG00000039956, ENSMUSG00000020123, ENSMUSG00000032547, ENSMUSG00000029236, ENSMUSG00000020524, ENSMUSG00000024028, ENSMUSG00000026874, ENSMUSG00000059495, ENSMUSG00000022996, ENSMUSG00000031489, ENSMUSG00000032216, ENSMUSG00000031780, ENSMUSG00000054196, ENSMUSG00000072966, ENSMUSG00000023235, ENSMUSG00000037010, ENSMUSG00000031980
GO: 0061 135	endopeptidase regulator activity	0.00566047	20	ENSMUSG00000017716, ENSMUSG00000074148, ENSMUSG00000029664, ENSMUSG00000066363, ENSMUSG00000021403, ENSMUSG00000041481, ENSMUSG00000059657, ENSMUSG00000068129, ENSMUSG00000041536, ENSMUSG00000001131,	8.76E-05	24	ENSMUSG00000025860, ENSMUSG00000022868, ENSMUSG00000025889, ENSMUSG00000073602, ENSMUSG00000026715, ENSMUSG00000044594, ENSMUSG00000058017, ENSMUSG00000039278, ENSMUSG00000026874, ENSMUSG00000059956,

				ENSMUSG00000020415, ENSMUSG00000058207, ENSMUSG00000079597, ENSMUSG00000079012, ENSMUSG00000061947, ENSMUSG00000066364, ENSMUSG00000021091, ENSMUSG00000030111, ENSMUSG00000066361, ENSMUSG00000051949			ENSMUSG00000067006, ENSMUSG00000023336, ENSMUSG00000031760, ENSMUSG00000026327, ENSMUSG00000028356, ENSMUSG00000030359, ENSMUSG00000058260, ENSMUSG00000055561, ENSMUSG00000022871, ENSMUSG00000019278, ENSMUSG00000070531, ENSMUSG00000073601, ENSMUSG00000027442, ENSMUSG00000031980
GO: 0016 918	retinal binding	1	0		0.000805435	6	ENSMUSG00000046402, ENSMUSG00000028996, ENSMUSG00000024990, ENSMUSG00000004885, ENSMUSG00000032454, ENSMUSG00000032291
GO: 0046 906	tetrapyrrole binding	1	5	ENSMUSG00000003484, ENSMUSG00000003555, ENSMUSG00000030895, ENSMUSG00000031551, ENSMUSG00000039519	0.000468031	18	ENSMUSG00000003053, ENSMUSG000000074254, ENSMUSG000000066072, ENSMUSG000000052974, ENSMUSG00000024039, ENSMUSG00000018893, ENSMUSG00000032315, ENSMUSG00000032310, ENSMUSG00000006373, ENSMUSG00000052217, ENSMUSG00000028356, ENSMUSG00000075217, ENSMUSG00000021032, ENSMUSG00000029361, ENSMUSG00000066071, ENSMUSG00000055609, ENSMUSG00000052187, ENSMUSG00000073424
GO: 0005 215	transporter activity	1	32	ENSMUSG00000038963, ENSMUSG000000024112, ENSMUSG00000026822, ENSMUSG00000031098, ENSMUSG00000028255, ENSMUSG00000001095, ENSMUSG00000047197, ENSMUSG00000029811, ENSMUSG00000037202, ENSMUSG00000001901, ENSMUSG00000020848, ENSMUSG00000028217, ENSMUSG00000011008, ENSMUSG00000020651,	0.00570884	71	ENSMUSG00000030302, ENSMUSG00000062515, ENSMUSG00000070570, ENSMUSG00000054422, ENSMUSG00000032511, ENSMUSG00000027849, ENSMUSG00000026824, ENSMUSG00000020524, ENSMUSG00000090639, ENSMUSG00000033615, ENSMUSG00000032454, ENSMUSG00000058921, ENSMUSG00000078621, ENSMUSG00000028356,

			ENSMUSG00000037321, ENSMUSG00000028262, ENSMUSG00000040010, ENSMUSG00000053395, ENSMUSG00000027219, ENSMUSG00000022548, ENSMUSG00000049303, ENSMUSG00000030525, ENSMUSG00000035355, ENSMUSG00000056494, ENSMUSG00000009292, ENSMUSG00000021983, ENSMUSG00000072572, ENSMUSG00000022094, ENSMUSG00000056025, ENSMUSG00000024339, ENSMUSG00000047330, ENSMUSG00000026177		ENSMUSG00000041633, ENSMUSG00000032839, ENSMUSG00000032291, ENSMUSG00000074218, ENSMUSG00000052187, ENSMUSG00000004885, ENSMUSG00000032034, ENSMUSG00000059412, ENSMUSG00000028427, ENSMUSG00000038201, ENSMUSG00000052305, ENSMUSG00000030785, ENSMUSG00000052217, ENSMUSG00000023013, ENSMUSG00000024990, ENSMUSG00000029205, ENSMUSG00000032083, ENSMUSG00000032548, ENSMUSG00000049281, ENSMUSG00000033965, ENSMUSG00000031997, ENSMUSG00000019894, ENSMUSG00000045775, ENSMUSG00000025488, ENSMUSG00000030730, ENSMUSG00000046480, ENSMUSG00000018893, ENSMUSG00000057182, ENSMUSG00000046402, ENSMUSG00000006269, ENSMUSG00000032554, ENSMUSG00000001986, ENSMUSG00000018566, ENSMUSG00000047797, ENSMUSG00000020566, ENSMUSG00000006574, ENSMUSG00000028773, ENSMUSG00000021032, ENSMUSG00000055609, ENSMUSG00000031710, ENSMUSG00000051726, ENSMUSG00000019326, ENSMUSG00000032570, ENSMUSG00000010064, ENSMUSG00000061273, ENSMUSG00000027887, ENSMUSG00000019478, ENSMUSG00000028996, ENSMUSG00000020295, ENSMUSG00000031144, ENSMUSG00000073063, ENSMUSG00000035540,
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						ENSMUSG00000029862, ENSMUSG00000034810, ENSMUSG00000020722, ENSMUSG00000026961, ENSMUSG00000037624
GO: 0019 842	vitamin binding	1	0		2.33E-06	22 ENSMUSG0000006675, ENSMUSG00000032374, ENSMUSG00000029368, ENSMUSG00000022546, ENSMUSG00000025270, ENSMUSG00000004885, ENSMUSG00000024039, ENSMUSG00000020182, ENSMUSG00000046402, ENSMUSG00000025815, ENSMUSG00000026621, ENSMUSG00000032454, ENSMUSG00000024990, ENSMUSG00000028996, ENSMUSG00000035540, ENSMUSG00000032291, ENSMUSG00000024892, ENSMUSG00000025153, ENSMUSG00000040808, ENSMUSG00000057880, ENSMUSG00000020532, ENSMUSG00000002769
GO: 0005 506	iron ion binding	1	9	ENSMUSG0000003484, ENSMUSG00000026822, ENSMUSG00000039519, ENSMUSG00000012428, ENSMUSG00000050370, ENSMUSG00000003555, ENSMUSG00000030895, ENSMUSG00000018907, ENSMUSG00000031551	0.000177257	25 ENSMUSG0000006675, ENSMUSG0000003053, ENSMUSG00000032374, ENSMUSG00000074254, ENSMUSG00000066072, ENSMUSG00000025889, ENSMUSG00000052974, ENSMUSG00000024039, ENSMUSG00000018893, ENSMUSG00000090639, ENSMUSG00000032554, ENSMUSG00000032315, ENSMUSG00000032310, ENSMUSG00000006373, ENSMUSG00000052217, ENSMUSG00000032807, ENSMUSG00000028356, ENSMUSG00000075217, ENSMUSG00000037071, ENSMUSG00000021032, ENSMUSG00000029361, ENSMUSG00000066071, ENSMUSG00000052187, ENSMUSG00000055609,

							ENSMUSG00000073424
GO: 0019 825	oxygen binding	1	0		0.004721382	6	ENSMUSG00000021032, ENSMUSG00000052974, ENSMUSG00000052187, ENSMUSG00000055609, ENSMUSG00000018893, ENSMUSG00000052217
GO: 0005 126	cytokine receptor binding	3.07E-11	34	ENSMUSG00000058755, ENSMUSG00000035352, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000071005, ENSMUSG00000009185, ENSMUSG00000046845, ENSMUSG00000016529, ENSMUSG00000035385, ENSMUSG00000026166, ENSMUSG00000028072, ENSMUSG00000018930, ENSMUSG00000000817, ENSMUSG00000027398, ENSMUSG00000034855, ENSMUSG00000028362, ENSMUSG00000044701, ENSMUSG00000018920, ENSMUSG00000055170, ENSMUSG00000045322, ENSMUSG00000026104, ENSMUSG00000035042, ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000004296, ENSMUSG00000000982, ENSMUSG00000026981, ENSMUSG00000029371, ENSMUSG00000023078, ENSMUSG00000034394, ENSMUSG00000024401, ENSMUSG00000048806, ENSMUSG00000025746, ENSMUSG00000029380	1	9	ENSMUSG00000031380, ENSMUSG00000026984, ENSMUSG00000031780, ENSMUSG00000036867, ENSMUSG00000023235, ENSMUSG00000026983, ENSMUSG00000024028, ENSMUSG00000059327, ENSMUSG00000032491
GO: 0019 841	retinol binding	1	0		0.000805435	6	ENSMUSG00000046402, ENSMUSG00000028996, ENSMUSG00000024990, ENSMUSG00000004885, ENSMUSG00000032454, ENSMUSG00000032291
GO: 0004	carboxylesterase activity	1	0		0.001799642	11	ENSMUSG00000031725, ENSMUSG00000062826, ENSMUSG00000074156, ENSMUSG00000023328,

091							ENSMUSG00000031877, ENSMUSG00000071047, ENSMUSG00000078964, ENSMUSG00000061959, ENSMUSG00000057074, ENSMUSG00000031886, ENSMUSG00000050097
GO: 0008 009	chemokine activity	3.14E-13	17	ENSMUSG00000018920, ENSMUSG00000035352, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000035042, ENSMUSG00000071005, ENSMUSG00000009185, ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000023078, ENSMUSG00000029371, ENSMUSG00000026166, ENSMUSG00000018930, ENSMUSG00000029380, ENSMUSG00000034855	1	2	ENSMUSG00000031780, ENSMUSG00000023235
GO: 0004 866	endopeptidase inhibitor activity	0.00308741 8	20	ENSMUSG00000017716, ENSMUSG00000074148, ENSMUSG00000029664, ENSMUSG00000066363, ENSMUSG00000021403, ENSMUSG00000041481, ENSMUSG00000059657, ENSMUSG00000068129, ENSMUSG00000041536, ENSMUSG0000001131, ENSMUSG00000020415, ENSMUSG00000058207, ENSMUSG00000079597, ENSMUSG00000079012, ENSMUSG00000061947, ENSMUSG00000066364, ENSMUSG00000021091, ENSMUSG00000030111, ENSMUSG00000066361, ENSMUSG00000051949	4.04E-05	24	ENSMUSG00000025860, ENSMUSG00000022868, ENSMUSG00000025889, ENSMUSG00000073602, ENSMUSG00000026715, ENSMUSG00000044594, ENSMUSG00000058017, ENSMUSG00000039278, ENSMUSG00000026874, ENSMUSG00000059956, ENSMUSG00000067006, ENSMUSG00000023336, ENSMUSG00000031760, ENSMUSG00000026327, ENSMUSG00000028356, ENSMUSG00000030359, ENSMUSG00000058260, ENSMUSG00000055561, ENSMUSG00000022871, ENSMUSG00000019278, ENSMUSG00000070531, ENSMUSG00000073601, ENSMUSG00000027442, ENSMUSG00000031980
GO:	oxidoreductase activity	1	14	ENSMUSG00000003484, ENSMUSG00000039519,	0.002496295	55	ENSMUSG00000006675, ENSMUSG00000003053,

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ENSMUSG00000032322, ENSMUSG00000024529,  
ENSMUSG00000012428, ENSMUSG00000003617,  
ENSMUSG00000050370, ENSMUSG00000005667,  
ENSMUSG00000020649, ENSMUSG00000029811,  
ENSMUSG00000003555, ENSMUSG00000018907,  
ENSMUSG00000031891, ENSMUSG00000031551

ENSMUSG00000032263, ENSMUSG00000025488,  
ENSMUSG00000074254, ENSMUSG00000091867,  
ENSMUSG00000025889, ENSMUSG00000068083,  
ENSMUSG00000040147, ENSMUSG00000031844,  
ENSMUSG0000002010, ENSMUSG00000031209,  
ENSMUSG00000032310, ENSMUSG00000025037,  
ENSMUSG00000032418, ENSMUSG00000005547,  
ENSMUSG00000032807, ENSMUSG00000032279,  
ENSMUSG00000025150, ENSMUSG00000019102,  
ENSMUSG00000026691, ENSMUSG00000037071,  
ENSMUSG00000071019, ENSMUSG00000031379,  
ENSMUSG00000074218, ENSMUSG00000029361,  
ENSMUSG00000066071, ENSMUSG00000025202,  
ENSMUSG00000025153, ENSMUSG00000073424,  
ENSMUSG00000078597, ENSMUSG00000032314,  
ENSMUSG00000032374, ENSMUSG00000066072,  
ENSMUSG00000052974, ENSMUSG00000023019,  
ENSMUSG00000019326, ENSMUSG00000040181,  
ENSMUSG00000031299, ENSMUSG00000025815,  
ENSMUSG00000026621, ENSMUSG00000032315,  
ENSMUSG00000000889, ENSMUSG00000030785,  
ENSMUSG00000090150, ENSMUSG00000052131,  
ENSMUSG00000040127, ENSMUSG00000075217,  
ENSMUSG00000028167, ENSMUSG00000033044,  
ENSMUSG00000064294, ENSMUSG00000025260,  
ENSMUSG00000029695, ENSMUSG00000050195,

							ENSMUSG00000027380
GO: 0031 014	troponin T binding	1	0		5.22E-05	5	ENSMUSG00000031097, ENSMUSG00000091898, ENSMUSG00000064179, ENSMUSG00000035458, ENSMUSG00000021909
GO: 0004 252	serine-type endopeptidase activity	0.00235589 8	19	ENSMUSG00000066513, ENSMUSG00000005800, ENSMUSG00000092005, ENSMUSG00000031444, ENSMUSG00000024371, ENSMUSG00000024124, ENSMUSG00000015437, ENSMUSG00000079186, ENSMUSG00000000392, ENSMUSG00000079451, ENSMUSG00000055172, ENSMUSG00000042385, ENSMUSG00000023132, ENSMUSG00000063903, ENSMUSG00000045027, ENSMUSG00000022622, ENSMUSG00000090231, ENSMUSG00000063177, ENSMUSG00000066512	1	7	ENSMUSG00000059481, ENSMUSG00000061068, ENSMUSG00000050762, ENSMUSG00000024386, ENSMUSG00000030713, ENSMUSG00000061780, ENSMUSG00000061259
GO: 0019 955	cytokine binding	0.00237696 9	11	ENSMUSG00000068227, ENSMUSG00000050232, ENSMUSG00000070427, ENSMUSG00000025804, ENSMUSG00000049103, ENSMUSG00000079227, ENSMUSG00000030111, ENSMUSG0000004296, ENSMUSG00000000791, ENSMUSG00000026770, ENSMUSG00000037872	1	3	ENSMUSG00000040488, ENSMUSG00000031146, ENSMUSG00000010047
GO: 0004 867	serine-type endopeptidase inhibitor activity	0.31252900 1	12	ENSMUSG00000029664, ENSMUSG00000066363, ENSMUSG00000058207, ENSMUSG00000021403, ENSMUSG00000079012, ENSMUSG00000041481, ENSMUSG00000061947, ENSMUSG00000066364, ENSMUSG00000021091, ENSMUSG00000030111, ENSMUSG00000066361, ENSMUSG00000041536	0.002734701	16	ENSMUSG00000073602, ENSMUSG00000026715, ENSMUSG00000044594, ENSMUSG00000058017, ENSMUSG00000039278, ENSMUSG00000059956, ENSMUSG00000067006, ENSMUSG00000023336, ENSMUSG00000026327, ENSMUSG00000058260, ENSMUSG00000030359, ENSMUSG00000028356,

							ENSMUSG00000055561, ENSMUSG00000073601, ENSMUSG00000070531, ENSMUSG00000031980
GO: 0005 529	sugar binding	0.00048289 3	25	ENSMUSG00000030142, ENSMUSG00000030154, ENSMUSG00000027322, ENSMUSG00000030017, ENSMUSG00000038209, ENSMUSG00000043832, ENSMUSG00000030149, ENSMUSG00000053063, ENSMUSG00000030474, ENSMUSG00000026582, ENSMUSG00000030148, ENSMUSG00000049037, ENSMUSG00000079298, ENSMUSG00000029915, ENSMUSG00000030365, ENSMUSG00000030147, ENSMUSG00000021614, ENSMUSG00000022622, ENSMUSG00000001123, ENSMUSG00000026580, ENSMUSG00000067610, ENSMUSG00000030144, ENSMUSG00000030187, ENSMUSG00000030156, ENSMUSG00000059639	0.303646109	20	ENSMUSG00000039013, ENSMUSG00000079168, ENSMUSG00000004892, ENSMUSG00000031495, ENSMUSG00000034783, ENSMUSG00000040165, ENSMUSG00000020884, ENSMUSG00000024972, ENSMUSG00000030607, ENSMUSG00000025271, ENSMUSG00000031494, ENSMUSG00000025784, ENSMUSG00000074491, ENSMUSG00000046834, ENSMUSG00000030244, ENSMUSG00000051906, ENSMUSG00000036655, ENSMUSG00000053522, ENSMUSG00000022878, ENSMUSG00000028307
GO: 0031 726	CCR1 chemokine receptor binding	0.00419401 5	4	ENSMUSG00000035373, ENSMUSG00000018930, ENSMUSG00000000982, ENSMUSG00000035042	1	0	
GO: 0048 020	CCR chemokine receptor binding	2.33E-06	9	ENSMUSG00000023078, ENSMUSG00000035352, ENSMUSG00000026104, ENSMUSG00000018930, ENSMUSG00000035042, ENSMUSG00000071005, ENSMUSG00000035373, ENSMUSG00000035385, ENSMUSG00000000982	1	2	ENSMUSG00000031780, ENSMUSG00000023235
GO: 0042 379	chemokine receptor binding	3.72E-12	18	ENSMUSG00000018920, ENSMUSG00000035352, ENSMUSG00000026104, ENSMUSG00000058427, ENSMUSG00000029379, ENSMUSG00000035042,	1	3	ENSMUSG00000031780, ENSMUSG00000023235, ENSMUSG00000024028

				ENSMUSG00000071005, ENSMUSG00000009185, ENSMUSG00000026573, ENSMUSG00000035373, ENSMUSG00000035385, ENSMUSG00000000982, ENSMUSG00000023078, ENSMUSG00000029371, ENSMUSG00000026166, ENSMUSG00000018930, ENSMUSG00000029380, ENSMUSG00000034855			
GO: 0003 779	actin binding	1	5	ENSMUSG00000024397, ENSMUSG00000022534, ENSMUSG00000079227, ENSMUSG00000022021, ENSMUSG00000032322	2.68E-06	37	ENSMUSG00000068270, ENSMUSG00000032366, ENSMUSG00000055775, ENSMUSG00000033196, ENSMUSG00000057003, ENSMUSG00000039952, ENSMUSG00000033577, ENSMUSG00000021909, ENSMUSG0000006457, ENSMUSG00000052698, ENSMUSG00000027022, ENSMUSG00000056328, ENSMUSG00000061086, ENSMUSG00000066574, ENSMUSG00000032064, ENSMUSG00000060180, ENSMUSG00000001349, ENSMUSG00000026532, ENSMUSG00000040752, ENSMUSG00000035458, ENSMUSG00000031214, ENSMUSG00000089996, ENSMUSG00000091898, ENSMUSG00000053093, ENSMUSG00000023013, ENSMUSG00000031097, ENSMUSG00000033763, ENSMUSG00000039585, ENSMUSG00000045103, ENSMUSG00000035540, ENSMUSG00000038775, ENSMUSG00000024471, ENSMUSG00000059741, ENSMUSG00000041729, ENSMUSG00000026418, ENSMUSG00000052374, ENSMUSG00000049493
GO:	carbohydrate binding	8.22E-06	40	ENSMUSG00000027832, ENSMUSG00000027995,	0.005484143	35	ENSMUSG00000039013, ENSMUSG00000025810,

0030 246				<p>ENSMUSG00000030017, ENSMUSG00000009185,  ENSMUSG00000038209, ENSMUSG00000043832,  ENSMUSG00000029811, ENSMUSG00000079563,  ENSMUSG00000035385, ENSMUSG00000053063,  ENSMUSG00000030413, ENSMUSG00000030148,  ENSMUSG00000049037, ENSMUSG00000029915,  ENSMUSG00000030786, ENSMUSG00000030365,  ENSMUSG0000001123, ENSMUSG00000030144,  ENSMUSG00000029816, ENSMUSG00000030156,  ENSMUSG00000059639, ENSMUSG00000030154,  ENSMUSG00000030142, ENSMUSG00000027322,  ENSMUSG00000020330, ENSMUSG00000055994,  ENSMUSG00000035042, ENSMUSG00000053475,  ENSMUSG00000030149, ENSMUSG00000035373,  ENSMUSG00000030474, ENSMUSG00000023078,  ENSMUSG00000026582, ENSMUSG00000079298,  ENSMUSG00000021614, ENSMUSG00000030147,  ENSMUSG00000022622, ENSMUSG00000026580,  ENSMUSG00000067610, ENSMUSG00000030187</p>			<p>ENSMUSG00000033327, ENSMUSG00000031495,  ENSMUSG00000039269, ENSMUSG00000034783,  ENSMUSG00000026715, ENSMUSG00000020884,  ENSMUSG00000024972, ENSMUSG00000030607,  ENSMUSG00000031996, ENSMUSG00000025784,  ENSMUSG00000046834, ENSMUSG00000057606,  ENSMUSG00000030244, ENSMUSG00000036655,  ENSMUSG00000015354, ENSMUSG00000022878,  ENSMUSG00000053522, ENSMUSG00000079168,  ENSMUSG0000004892, ENSMUSG00000040165,  ENSMUSG00000061068, ENSMUSG00000001494,  ENSMUSG00000035459, ENSMUSG00000000049,  ENSMUSG00000025271, ENSMUSG00000030606,  ENSMUSG00000048758, ENSMUSG00000062778,  ENSMUSG00000031494, ENSMUSG00000074491,  ENSMUSG00000051906, ENSMUSG00000028307,  ENSMUSG00000010047</p>
GO: 0005 509	calcium ion binding	1	18	<p>ENSMUSG00000005800, ENSMUSG000000092005,  ENSMUSG00000031444, ENSMUSG00000050578,  ENSMUSG00000029811, ENSMUSG00000024857,  ENSMUSG00000037202, ENSMUSG00000028613,  ENSMUSG00000055172, ENSMUSG00000030218,  ENSMUSG00000023903, ENSMUSG00000028751,  ENSMUSG00000024842, ENSMUSG00000028217,</p>	1.34E-06	51	<p>ENSMUSG00000006675, ENSMUSG00000030302,  ENSMUSG00000030730, ENSMUSG00000032452,  ENSMUSG00000040488, ENSMUSG00000025889,  ENSMUSG00000031312, ENSMUSG00000074505,  ENSMUSG00000007122, ENSMUSG00000008153,  ENSMUSG00000061928, ENSMUSG00000031881,  ENSMUSG00000031841, ENSMUSG0000002588,</p>



				ENSMUSG00000024397, ENSMUSG00000030156, ENSMUSG00000025473, ENSMUSG00000035683			ENSMUSG00000059898, ENSMUSG00000039952, ENSMUSG00000030672, ENSMUSG00000032320, ENSMUSG00000021909, ENSMUSG00000006457, ENSMUSG00000030607, ENSMUSG00000033208, ENSMUSG00000017300, ENSMUSG00000061816, ENSMUSG00000005716, ENSMUSG00000027401, ENSMUSG00000025784, ENSMUSG00000024386, ENSMUSG00000044322, ENSMUSG00000033765, ENSMUSG00000020469, ENSMUSG00000026532, ENSMUSG00000019326, ENSMUSG00000032570, ENSMUSG00000056632, ENSMUSG00000091898, ENSMUSG00000025991, ENSMUSG00000040855, ENSMUSG00000014846, ENSMUSG00000046093, ENSMUSG00000021573, ENSMUSG00000032246, ENSMUSG00000037493, ENSMUSG00000063130, ENSMUSG00000069441, ENSMUSG00000059741, ENSMUSG00000052374, ENSMUSG00000055632, ENSMUSG00000049493, ENSMUSG00000040808, ENSMUSG00000034774
GO: 0005 344	oxygen transporter activity	1	0		1.24E-09	9	ENSMUSG00000020295, ENSMUSG00000073063, ENSMUSG00000078621, ENSMUSG00000018893, ENSMUSG00000021032, ENSMUSG00000055609, ENSMUSG00000052305, ENSMUSG00000052187, ENSMUSG00000052217
<b>Cellular Component</b>							
GO:	extracellular region part	1.53E-17	102	ENSMUSG00000060802, ENSMUSG00000058755,	3.29E-08	84	ENSMUSG00000033327, ENSMUSG00000025889,

0044 421			ENSMUSG00000022026, ENSMUSG00000036887, ENSMUSG00000009185, ENSMUSG00000024989, ENSMUSG00000003617, ENSMUSG00000016529, ENSMUSG00000028613, ENSMUSG00000000392, ENSMUSG00000018930, ENSMUSG00000000817, ENSMUSG00000036896, ENSMUSG00000040253, ENSMUSG00000020053, ENSMUSG00000030895, ENSMUSG00000021091, ENSMUSG0000000182, ENSMUSG00000054072, ENSMUSG00000037321, ENSMUSG00000034855, ENSMUSG00000079019, ENSMUSG00000044701, ENSMUSG00000018920, ENSMUSG00000069874, ENSMUSG00000079362, ENSMUSG0000006403, ENSMUSG00000070427, ENSMUSG0000005800, ENSMUSG0000002992, ENSMUSG00000035493, ENSMUSG00000022548, ENSMUSG00000050578, ENSMUSG00000028270, ENSMUSG00000035373, ENSMUSG00000038357, ENSMUSG00000000982, ENSMUSG00000057465, ENSMUSG00000029304, ENSMUSG00000038067, ENSMUSG00000030218, ENSMUSG00000023913, ENSMUSG0000001131, ENSMUSG00000026582, ENSMUSG00000079620, ENSMUSG00000028268, ENSMUSG00000021614, ENSMUSG00000048806, ENSMUSG00000029380, ENSMUSG00000021451, ENSMUSG00000025044, ENSMUSG00000036905, ENSMUSG00000035352, ENSMUSG00000026822,		ENSMUSG00000039269, ENSMUSG00000023328, ENSMUSG00000031274, ENSMUSG00000026715, ENSMUSG0000002588, ENSMUSG00000039952, ENSMUSG00000044820, ENSMUSG00000090639, ENSMUSG00000026983, ENSMUSG00000043719, ENSMUSG00000039278, ENSMUSG00000026874, ENSMUSG00000032332, ENSMUSG00000039004, ENSMUSG00000033208, ENSMUSG00000026668, ENSMUSG00000010051, ENSMUSG00000022871, ENSMUSG00000017697, ENSMUSG00000057606, ENSMUSG00000061808, ENSMUSG00000037010, ENSMUSG00000036655, ENSMUSG00000022878, ENSMUSG00000091345, ENSMUSG00000027376, ENSMUSG0000004892, ENSMUSG00000059201, ENSMUSG00000022868, ENSMUSG00000026984, ENSMUSG00000064057, ENSMUSG00000033544, ENSMUSG00000001494, ENSMUSG00000059327, ENSMUSG00000000049, ENSMUSG00000024990, ENSMUSG00000032083, ENSMUSG00000015405, ENSMUSG00000031780, ENSMUSG00000059481, ENSMUSG00000054196, ENSMUSG00000055632, ENSMUSG00000031980, ENSMUSG00000031380, ENSMUSG00000031134, ENSMUSG00000040488, ENSMUSG00000012705, ENSMUSG00000029368, ENSMUSG00000033831, ENSMUSG00000061780, ENSMUSG00000052911, ENSMUSG00000031841,
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				<p>ENSMUSG00000058427, ENSMUSG00000029379,  ENSMUSG00000060747, ENSMUSG00000029417,  ENSMUSG00000037974, ENSMUSG00000046845,  ENSMUSG00000024330, ENSMUSG00000047517,  ENSMUSG00000029377, ENSMUSG00000029811,  ENSMUSG00000029298, ENSMUSG00000051439,  ENSMUSG00000074115, ENSMUSG00000029378,  ENSMUSG00000035385, ENSMUSG00000040017,  ENSMUSG00000033880, ENSMUSG00000026166,  ENSMUSG00000030413, ENSMUSG00000027398,  ENSMUSG00000030117, ENSMUSG00000034459,  ENSMUSG00000028362, ENSMUSG00000041324,  ENSMUSG00000055170, ENSMUSG00000028269,  ENSMUSG00000039899, ENSMUSG00000035042,  ENSMUSG00000030077, ENSMUSG00000026573,  ENSMUSG00000033453, ENSMUSG0000004296,  ENSMUSG00000076612, ENSMUSG00000026981,  ENSMUSG00000040026, ENSMUSG00000018486,  ENSMUSG00000023078, ENSMUSG00000029371,  ENSMUSG00000034394, ENSMUSG00000024529,  ENSMUSG00000024401, ENSMUSG00000036596,  ENSMUSG00000090231, ENSMUSG00000024339,  ENSMUSG00000026580, ENSMUSG00000025746,  ENSMUSG00000030111, ENSMUSG00000020010</p>			<p>ENSMUSG00000041012, ENSMUSG00000021319,  ENSMUSG00000032554, ENSMUSG00000024028,  ENSMUSG00000018566, ENSMUSG00000030607,  ENSMUSG00000041559, ENSMUSG00000023336,  ENSMUSG00000005705, ENSMUSG00000020427,  ENSMUSG00000022996, ENSMUSG00000030359,  ENSMUSG00000074336, ENSMUSG00000025784,  ENSMUSG00000024386, ENSMUSG00000029019,  ENSMUSG00000040533, ENSMUSG00000074264,  ENSMUSG00000055653, ENSMUSG00000019326,  ENSMUSG00000023046, ENSMUSG00000032081,  ENSMUSG00000030606, ENSMUSG00000024653,  ENSMUSG00000035540, ENSMUSG00000062778,  ENSMUSG00000058914, ENSMUSG00000060962,  ENSMUSG00000023235, ENSMUSG00000071347</p>
GO: 0005	insoluble fraction	1	18	<p>ENSMUSG00000003665, ENSMUSG00000031444,  ENSMUSG00000030525, ENSMUSG00000041431,</p>	1.23E-05	70	<p>ENSMUSG00000030302, ENSMUSG00000032547,  ENSMUSG00000074254, ENSMUSG00000025889,</p>

ENSMUSG0000003555, ENSMUSG00000026475,  
ENSMUSG00000031891, ENSMUSG00000031898,  
ENSMUSG00000030148, ENSMUSG00000036986,  
ENSMUSG00000039519, ENSMUSG00000024339,  
ENSMUSG00000026580, ENSMUSG00000041347,  
ENSMUSG00000041831, ENSMUSG00000037321,  
ENSMUSG00000023045, ENSMUSG00000032218

ENSMUSG00000070570, ENSMUSG00000007122,  
ENSMUSG00000040867, ENSMUSG00000027849,  
ENSMUSG00000020524, ENSMUSG00000002588,  
ENSMUSG00000039952, ENSMUSG00000013418,  
ENSMUSG00000032310, ENSMUSG00000031812,  
ENSMUSG00000028356, ENSMUSG00000010051,  
ENSMUSG00000037071, ENSMUSG00000038776,  
ENSMUSG00000032076, ENSMUSG00000078597,  
ENSMUSG00000004892, ENSMUSG00000066072,  
ENSMUSG00000052974, ENSMUSG00000032086,  
ENSMUSG00000040181, ENSMUSG00000059412,  
ENSMUSG00000032315, ENSMUSG00000047182,  
ENSMUSG00000027820, ENSMUSG00000044338,  
ENSMUSG00000032491, ENSMUSG00000023013,  
ENSMUSG00000015405, ENSMUSG00000030554,  
ENSMUSG00000059481, ENSMUSG00000050195,  
ENSMUSG00000030730, ENSMUSG00000003053,  
ENSMUSG00000024500, ENSMUSG00000055980,  
ENSMUSG00000052911, ENSMUSG00000057182,  
ENSMUSG00000031844, ENSMUSG00000006269,  
ENSMUSG00000033577, ENSMUSG00000001986,  
ENSMUSG00000018566, ENSMUSG00000033595,  
ENSMUSG00000036813, ENSMUSG00000031489,  
ENSMUSG00000026691, ENSMUSG00000048142,  
ENSMUSG00000032216, ENSMUSG00000032060,  
ENSMUSG00000030244, ENSMUSG00000066071,

							ENSMUSG00000029361, ENSMUSG00000073424, ENSMUSG00000057880, ENSMUSG00000019326, ENSMUSG00000032570, ENSMUSG00000007815, ENSMUSG00000019478, ENSMUSG00000031144, ENSMUSG00000045103, ENSMUSG00000048758, ENSMUSG00000030747, ENSMUSG00000022206, ENSMUSG00000028307, ENSMUSG00000012187
GO: 0009 897	external side of plasma membrane	2.33E-17	46	ENSMUSG00000060802, ENSMUSG00000027995, ENSMUSG00000071005, ENSMUSG00000029417, ENSMUSG00000061232, ENSMUSG00000053977, ENSMUSG00000075602, ENSMUSG00000073411, ENSMUSG00000050232, ENSMUSG00000000817, ENSMUSG00000075122, ENSMUSG00000078452, ENSMUSG00000030786, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000030167, ENSMUSG00000026285, ENSMUSG00000025804, ENSMUSG00000059089, ENSMUSG00000079227, ENSMUSG00000030156, ENSMUSG00000034855, ENSMUSG00000026770, ENSMUSG00000016496, ENSMUSG00000055170, ENSMUSG00000028965, ENSMUSG00000068227, ENSMUSG00000062082, ENSMUSG00000058715, ENSMUSG00000030525, ENSMUSG00000030149, ENSMUSG00000050896, ENSMUSG00000000791, ENSMUSG00000015947, ENSMUSG00000022901, ENSMUSG00000026656, ENSMUSG00000050241, ENSMUSG00000029075,	1	10	ENSMUSG00000033831, ENSMUSG00000032034, ENSMUSG00000017697, ENSMUSG00000059481, ENSMUSG00000026824, ENSMUSG00000031841, ENSMUSG00000035459, ENSMUSG00000041688, ENSMUSG00000018566, ENSMUSG00000010047

				ENSMUSG00000030124, ENSMUSG00000079298, ENSMUSG00000024401, ENSMUSG00000022582, ENSMUSG00000026580, ENSMUSG00000025746, ENSMUSG00000053219, ENSMUSG00000026009			
GO: 0044 216	other organism cell	1.79E-11	11	ENSMUSG00000028269, ENSMUSG00000069874, ENSMUSG00000079362, ENSMUSG00000028268, ENSMUSG00000040253, ENSMUSG00000024339, ENSMUSG00000028270, ENSMUSG00000029298, ENSMUSG00000054072, ENSMUSG00000037321, ENSMUSG00000034459	1	0	
GO: 0042 598	vesicular fraction	1	7	ENSMUSG00000024339, ENSMUSG00000003555, ENSMUSG00000031891, ENSMUSG00000023045, ENSMUSG00000037321, ENSMUSG00000039519, ENSMUSG00000031444	1.31E-07	36	ENSMUSG00000030302, ENSMUSG00000003053, ENSMUSG00000030730, ENSMUSG00000074254, ENSMUSG00000025889, ENSMUSG00000055980, ENSMUSG00000007122, ENSMUSG00000002588, ENSMUSG00000031844, ENSMUSG00000033577, ENSMUSG00000013418, ENSMUSG00000032310, ENSMUSG00000018566, ENSMUSG00000028356, ENSMUSG00000026691, ENSMUSG00000010051, ENSMUSG00000048142, ENSMUSG00000037071, ENSMUSG00000038776, ENSMUSG00000066071, ENSMUSG00000073424, ENSMUSG00000078597, ENSMUSG00000052974, ENSMUSG00000019326, ENSMUSG00000066072, ENSMUSG00000032570, ENSMUSG00000040181, ENSMUSG00000059412, ENSMUSG00000032315, ENSMUSG00000047182, ENSMUSG00000019478, ENSMUSG00000045103,

							ENSMUSG00000030747, ENSMUSG00000059481, ENSMUSG00000050195, ENSMUSG00000028307
GO: 0031 674	I band	1	0		6.05E-08	19	ENSMUSG00000030730, ENSMUSG00000031312, ENSMUSG00000027077, ENSMUSG00000007122, ENSMUSG00000053093, ENSMUSG00000025172, ENSMUSG00000028116, ENSMUSG00000041361, ENSMUSG00000092137, ENSMUSG00000045103, ENSMUSG00000067653, ENSMUSG00000006574, ENSMUSG00000030554, ENSMUSG00000059741, ENSMUSG00000032060, ENSMUSG00000049173, ENSMUSG00000007877, ENSMUSG00000052374, ENSMUSG00000040752
GO: 0000 940	condensed chromosome outer kinetochore	3.00E-06	7	ENSMUSG00000041431, ENSMUSG00000040084, ENSMUSG00000024056, ENSMUSG00000036223, ENSMUSG00000026605, ENSMUSG00000030867, ENSMUSG00000069910	1	0	
GO: 0000 793	condensed chromosome	6.24E-05	18	ENSMUSG00000017716, ENSMUSG00000015880, ENSMUSG00000024791, ENSMUSG00000045273, ENSMUSG00000026039, ENSMUSG00000041431, ENSMUSG00000040084, ENSMUSG00000036223, ENSMUSG00000026605, ENSMUSG00000069910, ENSMUSG00000045328, ENSMUSG00000031004, ENSMUSG00000020897, ENSMUSG00000017146, ENSMUSG00000030867, ENSMUSG00000027379, ENSMUSG00000024056, ENSMUSG00000023940	1	0	
GO:	host cell	1.79E-11	11	ENSMUSG00000028269, ENSMUSG00000069874,	1	0	

0043 657				ENSMUSG00000079362, ENSMUSG00000028268, ENSMUSG00000040253, ENSMUSG00000024339, ENSMUSG00000028270, ENSMUSG00000029298, ENSMUSG00000054072, ENSMUSG00000037321, ENSMUSG00000034459			
GO: 0005 792	microsome	1	7	ENSMUSG00000024339, ENSMUSG0000003555, ENSMUSG00000031891, ENSMUSG00000023045, ENSMUSG00000037321, ENSMUSG00000039519, ENSMUSG00000031444	4.64E-08	36	ENSMUSG00000030302, ENSMUSG0000003053, ENSMUSG00000030730, ENSMUSG00000074254, ENSMUSG00000025889, ENSMUSG00000055980, ENSMUSG00000007122, ENSMUSG00000002588, ENSMUSG00000031844, ENSMUSG00000033577, ENSMUSG00000013418, ENSMUSG00000032310, ENSMUSG00000018566, ENSMUSG00000028356, ENSMUSG00000026691, ENSMUSG00000010051, ENSMUSG00000048142, ENSMUSG00000037071, ENSMUSG00000038776, ENSMUSG00000066071, ENSMUSG00000073424, ENSMUSG00000078597, ENSMUSG00000052974, ENSMUSG00000019326, ENSMUSG00000066072, ENSMUSG00000032570, ENSMUSG00000040181, ENSMUSG00000059412, ENSMUSG00000032315, ENSMUSG00000047182, ENSMUSG00000019478, ENSMUSG00000045103, ENSMUSG00000030747, ENSMUSG00000059481, ENSMUSG00000050195, ENSMUSG00000028307
GO: 0016 459	myosin complex	1	0		3.31E-08	17	ENSMUSG00000068270, ENSMUSG00000055775, ENSMUSG00000033196, ENSMUSG00000057003, ENSMUSG00000053093, ENSMUSG00000030672,



							ENSMUSG00000033590, ENSMUSG00000033577, ENSMUSG00000032232, ENSMUSG00000042451, ENSMUSG00000061816, ENSMUSG00000056328, ENSMUSG00000039585, ENSMUSG00000059741, ENSMUSG00000060180, ENSMUSG00000020469, ENSMUSG00000040752
GO: 0000 776	kinetochore	4.78E-10	22	ENSMUSG00000017716, ENSMUSG00000026683, ENSMUSG00000045273, ENSMUSG00000026039, ENSMUSG00000041431, ENSMUSG00000040084, ENSMUSG00000036223, ENSMUSG00000026605, ENSMUSG00000069910, ENSMUSG00000031756, ENSMUSG00000045328, ENSMUSG00000021714, ENSMUSG00000028678, ENSMUSG00000030867, ENSMUSG0000002055, ENSMUSG00000074476, ENSMUSG00000068101, ENSMUSG00000027379, ENSMUSG00000024056, ENSMUSG00000023940, ENSMUSG00000027331, ENSMUSG00000029414	1	0	
GO: 0000 922	spindle pole	0.00768979 2	10	ENSMUSG00000017499, ENSMUSG00000037544, ENSMUSG00000030867, ENSMUSG00000041431, ENSMUSG00000026605, ENSMUSG00000023940, ENSMUSG00000033952, ENSMUSG00000027496, ENSMUSG00000029414, ENSMUSG00000069910	1	0	
GO: 0030 430	host cell cytoplasm	4.37E-08	8	ENSMUSG00000040253, ENSMUSG00000028270, ENSMUSG00000028269, ENSMUSG00000069874, ENSMUSG00000029298, ENSMUSG00000079362, ENSMUSG00000054072, ENSMUSG00000028268	1	0	

GO: 0043 656	intracellular region of host	4.37E-08	8	ENSMUSG00000040253, ENSMUSG00000028270, ENSMUSG00000028269, ENSMUSG00000069874, ENSMUSG00000029298, ENSMUSG00000079362, ENSMUSG00000054072, ENSMUSG00000028268	1	0	
GO: 0044 430	cytoskeletal part	1	60	ENSMUSG00000017716, ENSMUSG00000079553, ENSMUSG00000015880, ENSMUSG00000050107, ENSMUSG00000027699, ENSMUSG00000024989, ENSMUSG00000026605, ENSMUSG00000024696, ENSMUSG00000030677, ENSMUSG00000068744, ENSMUSG00000019942, ENSMUSG00000045328, ENSMUSG0000006398, ENSMUSG00000028873, ENSMUSG00000041498, ENSMUSG00000017146, ENSMUSG0000002055, ENSMUSG00000019845, ENSMUSG00000037725, ENSMUSG00000027469, ENSMUSG00000022534, ENSMUSG00000067615, ENSMUSG00000027331, ENSMUSG00000053395, ENSMUSG00000029414, ENSMUSG00000048327, ENSMUSG00000025473, ENSMUSG00000028718, ENSMUSG00000032322, ENSMUSG00000030525, ENSMUSG00000041431, ENSMUSG00000036223, ENSMUSG00000027306, ENSMUSG00000037313, ENSMUSG00000023015, ENSMUSG00000024795, ENSMUSG00000026981, ENSMUSG00000037474, ENSMUSG00000069910, ENSMUSG00000051378, ENSMUSG0000002068, ENSMUSG00000020897, ENSMUSG00000038943, ENSMUSG00000017499,	0.004846425	74	ENSMUSG00000055775, ENSMUSG00000050463, ENSMUSG00000020524, ENSMUSG00000021909, ENSMUSG00000042451, ENSMUSG00000031812, ENSMUSG00000056328, ENSMUSG00000006777, ENSMUSG00000074673, ENSMUSG00000044041, ENSMUSG00000031176, ENSMUSG00000061527, ENSMUSG00000061397, ENSMUSG00000046095, ENSMUSG0000008035, ENSMUSG00000064179, ENSMUSG00000062380, ENSMUSG00000027470, ENSMUSG00000091898, ENSMUSG00000056267, ENSMUSG00000014846, ENSMUSG00000047746, ENSMUSG00000061723, ENSMUSG00000039585, ENSMUSG00000092137, ENSMUSG00000067594, ENSMUSG00000030554, ENSMUSG00000059741, ENSMUSG00000079480, ENSMUSG00000052374, ENSMUSG00000068270, ENSMUSG00000025810, ENSMUSG00000032366, ENSMUSG00000057003, ENSMUSG00000033196, ENSMUSG00000030672, ENSMUSG00000033577, ENSMUSG00000032010, ENSMUSG0000006457, ENSMUSG00000001986, ENSMUSG00000041688, ENSMUSG00000031972, ENSMUSG00000061816, ENSMUSG00000017300,

				ENSMUSG00000037544, ENSMUSG00000028678, ENSMUSG00000022385, ENSMUSG00000030867, ENSMUSG00000012443, ENSMUSG00000024397, ENSMUSG00000067614, ENSMUSG00000023940, ENSMUSG00000072082, ENSMUSG00000036768, ENSMUSG00000067613, ENSMUSG00000026779, ENSMUSG00000033952, ENSMUSG00000058290, ENSMUSG00000032218, ENSMUSG00000027496			ENSMUSG00000032232, ENSMUSG00000064201, ENSMUSG00000041361, ENSMUSG00000078252, ENSMUSG00000032060, ENSMUSG00000046834, ENSMUSG00000030244, ENSMUSG00000060180, ENSMUSG00000073465, ENSMUSG00000020469, ENSMUSG00000000881, ENSMUSG00000026532, ENSMUSG00000040752, ENSMUSG00000035458, ENSMUSG00000089996, ENSMUSG00000063661, ENSMUSG00000001134, ENSMUSG00000005355, ENSMUSG00000053093, ENSMUSG00000033590, ENSMUSG00000021573, ENSMUSG00000031097, ENSMUSG00000000266, ENSMUSG00000034467, ENSMUSG00000025812, ENSMUSG00000075307, ENSMUSG00000059668, ENSMUSG00000026418, ENSMUSG00000075402, ENSMUSG00000028307
GO: 0000 780	condensed nuclear chromosome, centromeric region	3.88E-05	7	ENSMUSG00000026039, ENSMUSG00000041431, ENSMUSG00000020897, ENSMUSG00000024056, ENSMUSG00000023940, ENSMUSG00000030867, ENSMUSG00000027379	1	0	
GO: 0000 779	condensed chromosome, centromeric region	4.15E-10	14	ENSMUSG00000017716, ENSMUSG00000045328, ENSMUSG00000020897, ENSMUSG00000030867, ENSMUSG00000045273, ENSMUSG00000027379, ENSMUSG00000026039, ENSMUSG00000041431, ENSMUSG00000024056, ENSMUSG00000040084, ENSMUSG00000036223, ENSMUSG00000026605, ENSMUSG00000023940, ENSMUSG00000069910	1	0	

GO: 0005 833	hemoglobin complex	1	0		0.000174643	5	ENSMUSG00000073940, ENSMUSG00000052187, ENSMUSG00000052305, ENSMUSG00000055609, ENSMUSG00000052217
GO: 0020 003	symbiont-containing vacuole	9.04E-09	8	ENSMUSG00000040253, ENSMUSG00000028270, ENSMUSG00000028269, ENSMUSG00000069874, ENSMUSG00000029298, ENSMUSG00000079362, ENSMUSG00000054072, ENSMUSG00000028268	1	0	
GO: 0033 646	host intracellular part	4.37E-08	8	ENSMUSG00000040253, ENSMUSG00000028270, ENSMUSG00000028269, ENSMUSG00000069874, ENSMUSG00000029298, ENSMUSG00000079362, ENSMUSG00000054072, ENSMUSG00000028268	1	0	
GO: 0070 161	anchoring junction	1	3	ENSMUSG00000024696, ENSMUSG00000003283, ENSMUSG00000030677	0.000684195	21	ENSMUSG00000001946, ENSMUSG00000056632, ENSMUSG00000039518, ENSMUSG00000030278, ENSMUSG00000061928, ENSMUSG00000059898, ENSMUSG00000039952, ENSMUSG00000053093, ENSMUSG0000006457, ENSMUSG00000052698, ENSMUSG00000021573, ENSMUSG00000022040, ENSMUSG00000025812, ENSMUSG00000069441, ENSMUSG00000041476, ENSMUSG00000026413, ENSMUSG00000030554, ENSMUSG00000044322, ENSMUSG00000052374, ENSMUSG00000034774, ENSMUSG00000040752
GO: 0005 576	extracellular region	6.76E-19	151	ENSMUSG00000035692, ENSMUSG00000036887, ENSMUSG00000041481, ENSMUSG00000003617, ENSMUSG00000028613, ENSMUSG00000000817, ENSMUSG00000036896, ENSMUSG00000001123,	1.77E-12	140	ENSMUSG00000025889, ENSMUSG00000039269, ENSMUSG00000051596, ENSMUSG00000023328, ENSMUSG00000059230, ENSMUSG00000026715, ENSMUSG00000040794, ENSMUSG00000002588,

			ENSMUSG00000061947, ENSMUSG00000020053, ENSMUSG00000037321, ENSMUSG00000069874, ENSMUSG00000030954, ENSMUSG00000027322, ENSMUSG00000006403, ENSMUSG00000002992, ENSMUSG00000000982, ENSMUSG00000029304, ENSMUSG00000038067, ENSMUSG00000041536, ENSMUSG00000026656, ENSMUSG00000030218, ENSMUSG00000023913, ENSMUSG00000001131, ENSMUSG00000026582, ENSMUSG00000028268, ENSMUSG00000028480, ENSMUSG00000036905, ENSMUSG00000029664, ENSMUSG00000040528, ENSMUSG00000035352, ENSMUSG00000026822, ENSMUSG00000029379, ENSMUSG00000060747, ENSMUSG00000037974, ENSMUSG00000046845, ENSMUSG00000038209, ENSMUSG00000024330, ENSMUSG00000047517, ENSMUSG00000029377, ENSMUSG00000029811, ENSMUSG00000037202, ENSMUSG00000051439, ENSMUSG00000079451, ENSMUSG00000033880, ENSMUSG00000030413, ENSMUSG00000066364, ENSMUSG00000027398, ENSMUSG00000034459, ENSMUSG00000028362, ENSMUSG00000029005, ENSMUSG00000055170, ENSMUSG00000050957, ENSMUSG00000039899, ENSMUSG0000002847, ENSMUSG00000035042, ENSMUSG00000030077, ENSMUSG00000004296, ENSMUSG00000076612, ENSMUSG00000040026,			ENSMUSG00000039952, ENSMUSG00000090639, ENSMUSG00000011632, ENSMUSG00000032332, ENSMUSG00000033208, ENSMUSG00000057969, ENSMUSG00000028356, ENSMUSG00000010051, ENSMUSG00000017697, ENSMUSG00000074199, ENSMUSG00000057606, ENSMUSG00000061808, ENSMUSG00000037010, ENSMUSG00000032311, ENSMUSG00000027376, ENSMUSG00000022868, ENSMUSG00000026984, ENSMUSG00000046056, ENSMUSG00000073602, ENSMUSG00000044594, ENSMUSG00000033544, ENSMUSG00000032172, ENSMUSG00000059327, ENSMUSG00000067006, ENSMUSG00000036395, ENSMUSG00000032083, ENSMUSG00000066108, ENSMUSG00000028989, ENSMUSG00000031780, ENSMUSG00000059481, ENSMUSG00000054196, ENSMUSG00000006235, ENSMUSG00000055632, ENSMUSG00000031980, ENSMUSG00000039070, ENSMUSG00000031380, ENSMUSG00000012705, ENSMUSG00000033831, ENSMUSG00000052911, ENSMUSG00000031841, ENSMUSG00000030713, ENSMUSG00000032554, ENSMUSG00000021319, ENSMUSG00000030607, ENSMUSG00000075605, ENSMUSG0000005705, ENSMUSG00000022996, ENSMUSG00000030359, ENSMUSG00000074336, ENSMUSG00000070531, ENSMUSG00000031283, ENSMUSG00000073601,
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GO: 0005 886	plasma membrane	4.07E-07	202	<p>ENSMUSG00000039364, ENSMUSG00000017716,  ENSMUSG00000027995, ENSMUSG00000031098,  ENSMUSG00000048534, ENSMUSG00000027699,  ENSMUSG00000003617, ENSMUSG00000024857,  ENSMUSG00000049103, ENSMUSG00000061232,  ENSMUSG00000028613, ENSMUSG00000053977,</p>	1	170	<p>ENSMUSG00000039956, ENSMUSG00000030302,  ENSMUSG00000032547, ENSMUSG00000032452,  ENSMUSG00000025889, ENSMUSG00000023328,  ENSMUSG00000007122, ENSMUSG00000031881,  ENSMUSG00000027849, ENSMUSG00000090877,  ENSMUSG00000039952, ENSMUSG00000090639,</p>

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GO: 0030 057	desmosome	1	0		9.58E-05	8	ENSMUSG00000061928, ENSMUSG00000059898, ENSMUSG00000044322, ENSMUSG00000069441, ENSMUSG00000056632, ENSMUSG00000039518, ENSMUSG00000034774, ENSMUSG00000026413	
GO: 0031 012	extracellular matrix	1	22	ENSMUSG00000025044, ENSMUSG00000036905, ENSMUSG00000006403, ENSMUSG00000005800, ENSMUSG00000035493, ENSMUSG00000036887, ENSMUSG00000037974, ENSMUSG00000024330, ENSMUSG00000050578, ENSMUSG00000047517,		0.005498301	33	ENSMUSG00000033327, ENSMUSG00000029368, ENSMUSG00000040488, ENSMUSG00000025889, ENSMUSG00000039269, ENSMUSG00000052911, ENSMUSG00000023328, ENSMUSG00000031274, ENSMUSG00000039952, ENSMUSG00000090639,

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GO: 0033 655	host cell cytoplasm part	4.37E-08	8	ENSMUSG00000040253, ENSMUSG00000028270, ENSMUSG00000028269, ENSMUSG00000069874, ENSMUSG00000029298, ENSMUSG00000079362, ENSMUSG00000054072, ENSMUSG00000028268	1	0	
GO: 0043 034	costamere	1	0		0.006781018	6	ENSMUSG00000047419, ENSMUSG00000030554, ENSMUSG00000039952, ENSMUSG00000045103, ENSMUSG00000041476, ENSMUSG00000032839
GO: 0031 672	A band	1	0		5.75E-05	8	ENSMUSG00000030730, ENSMUSG00000056328, ENSMUSG00000061086, ENSMUSG00000033196, ENSMUSG00000041476, ENSMUSG00000027077, ENSMUSG00000059741, ENSMUSG00000020469
GO: 0044 449	contractile fiber part	1	0		6.12E-21	38	ENSMUSG00000030730, ENSMUSG00000032366, ENSMUSG00000033196, ENSMUSG00000031312, ENSMUSG00000007122, ENSMUSG00000047419,

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GO: 0042 612	MHC class I protein complex	7.51E-05	7	ENSMUSG00000073411, ENSMUSG00000060802, ENSMUSG00000035929, ENSMUSG00000061232, ENSMUSG00000067212, ENSMUSG00000060550, ENSMUSG00000073409	1	0	
GO: 0043 230	extracellular organelle	3.24E-05	8	ENSMUSG00000040253, ENSMUSG00000028270, ENSMUSG00000028269, ENSMUSG00000069874, ENSMUSG00000029298, ENSMUSG00000079362, ENSMUSG00000054072, ENSMUSG00000028268	1	3	ENSMUSG00000031134, ENSMUSG00000027376, ENSMUSG00000018566
GO: 0005	extracellular space	9.15E-14	79	ENSMUSG00000060802, ENSMUSG00000058755, ENSMUSG00000022026, ENSMUSG00000009185,	8.34E-07	66	ENSMUSG00000033327, ENSMUSG00000023328, ENSMUSG00000026715, ENSMUSG0000002588,

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GO: 0005 938	cell cortex	1	4	ENSMUSG00000026582, ENSMUSG00000032322, ENSMUSG00000002307, ENSMUSG00000035683	0.009441919	19	ENSMUSG00000068270, ENSMUSG00000033831, ENSMUSG00000025889, ENSMUSG00000033196, ENSMUSG00000054422, ENSMUSG00000007815, ENSMUSG00000032010, ENSMUSG00000025656, ENSMUSG00000041361, ENSMUSG00000092137, ENSMUSG00000025812, ENSMUSG00000055561, ENSMUSG00000032216, ENSMUSG00000006574, ENSMUSG00000032064, ENSMUSG00000055632, ENSMUSG00000030244, ENSMUSG00000052374, ENSMUSG00000026532
GO: 0071 944	cell periphery	1.06E-06	204	ENSMUSG00000039364, ENSMUSG00000017716, ENSMUSG00000027995, ENSMUSG00000031098, ENSMUSG00000048534, ENSMUSG00000027699, ENSMUSG00000003617, ENSMUSG00000024857,	0.513064227	180	ENSMUSG00000039956, ENSMUSG00000030302, ENSMUSG00000032547, ENSMUSG00000032452, ENSMUSG00000025889, ENSMUSG00000054422, ENSMUSG00000023328, ENSMUSG00000007122,

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GO: 0030 054	cell junction	1	15	<p>ENSMUSG00000045471, ENSMUSG00000003283,  ENSMUSG00000048534, ENSMUSG00000047230,  ENSMUSG00000049303, ENSMUSG00000028068,  ENSMUSG00000027699, ENSMUSG00000050578,  ENSMUSG00000030525, ENSMUSG00000047197,  ENSMUSG00000029811, ENSMUSG00000024696,</p>	6.51E-06	60	<p>ENSMUSG00000038064, ENSMUSG00000070570,  ENSMUSG00000023328, ENSMUSG00000032511,  ENSMUSG00000061928, ENSMUSG00000027849,  ENSMUSG00000020524, ENSMUSG00000059898,  ENSMUSG00000039952, ENSMUSG00000071317,  ENSMUSG0000006457, ENSMUSG00000001986,</p>

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GO: 0030	myofibril	1	0		1.96E-23	42	ENSMUSG00000009471, ENSMUSG00000030730, ENSMUSG00000032366, ENSMUSG00000033196,

016						ENSMUSG00000057003, ENSMUSG00000031312, ENSMUSG00000007122, ENSMUSG00000047419, ENSMUSG00000039952, ENSMUSG00000021909, ENSMUSG00000006457, ENSMUSG00000025172, ENSMUSG00000031972, ENSMUSG00000017300, ENSMUSG00000061816, ENSMUSG00000056328, ENSMUSG00000041361, ENSMUSG00000061086, ENSMUSG00000067653, ENSMUSG00000032839, ENSMUSG00000006574, ENSMUSG00000032060, ENSMUSG00000007877, ENSMUSG00000060180, ENSMUSG00000020469, ENSMUSG00000040752, ENSMUSG00000064179, ENSMUSG00000035458, ENSMUSG00000027077, ENSMUSG00000091898, ENSMUSG00000053093, ENSMUSG00000061723, ENSMUSG00000028116, ENSMUSG00000031097, ENSMUSG00000092137, ENSMUSG00000045103, ENSMUSG00000041476, ENSMUSG00000059741, ENSMUSG00000030554, ENSMUSG00000026418, ENSMUSG00000049173, ENSMUSG00000052374	
GO: 0042 611	MHC protein complex	0.00063215 6	8	ENSMUSG00000073411, ENSMUSG00000060802, ENSMUSG00000035929, ENSMUSG00000061232, ENSMUSG00000067341, ENSMUSG00000067212, ENSMUSG00000060550, ENSMUSG00000073409	1	0	
GO: 0000 267	cell fraction	1	27	ENSMUSG00000024079, ENSMUSG00000003665, ENSMUSG00000035042, ENSMUSG00000031444, ENSMUSG00000030525, ENSMUSG00000041431,	1.78E-06	88	ENSMUSG00000037686, ENSMUSG00000030302, ENSMUSG00000032547, ENSMUSG00000074254, ENSMUSG00000025889, ENSMUSG00000070570,

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GO: 0005 911	cell-cell junction	1	7	<p>ENSMUSG00000047197, ENSMUSG00000029811,  ENSMUSG00000048534, ENSMUSG00000047230,  ENSMUSG00000028068, ENSMUSG00000027699,  ENSMUSG000000050578</p>	0.000489146	29	<p>ENSMUSG00000013076, ENSMUSG00000038064,  ENSMUSG00000001946, ENSMUSG00000056632,  ENSMUSG00000039518, ENSMUSG00000032511,  ENSMUSG00000061928, ENSMUSG00000007815,  ENSMUSG00000059898, ENSMUSG00000039952,  ENSMUSG00000028427, ENSMUSG00000071317,  ENSMUSG00000041688, ENSMUSG00000052698,  ENSMUSG00000032232, ENSMUSG00000047797,  ENSMUSG00000056328, ENSMUSG00000025812,  ENSMUSG00000069441, ENSMUSG00000067653,  ENSMUSG000000050520, ENSMUSG00000026413,</p>

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GO: 0018 995	host	1.79E-11	11	ENSMUSG00000028269, ENSMUSG00000069874, ENSMUSG00000079362, ENSMUSG00000028268, ENSMUSG00000040253, ENSMUSG00000024339, ENSMUSG00000028270, ENSMUSG00000029298, ENSMUSG00000054072, ENSMUSG00000037321, ENSMUSG00000034459	1	0	
GO: 0000 777	condensed chromosome kinetochore	6.24E-07	10	ENSMUSG00000017716, ENSMUSG00000030867, ENSMUSG00000045273, ENSMUSG00000027379, ENSMUSG00000024056, ENSMUSG00000040084, ENSMUSG00000041431, ENSMUSG00000026605, ENSMUSG00000036223, ENSMUSG00000069910	1	0	
GO: 0005 861	troponin complex	1	0		1.63E-08	8	ENSMUSG00000061723, ENSMUSG00000031097, ENSMUSG00000064179, ENSMUSG00000035458, ENSMUSG00000091898, ENSMUSG00000026418, ENSMUSG00000021909, ENSMUSG00000017300
GO: 0044 427	chromosomal part	5.16E-06	45	ENSMUSG00000075266, ENSMUSG00000017716, ENSMUSG00000069302, ENSMUSG00000015880, ENSMUSG00000022034, ENSMUSG00000024791, ENSMUSG00000045273, ENSMUSG00000026605, ENSMUSG00000075031, ENSMUSG00000026646, ENSMUSG00000005410, ENSMUSG00000030677, ENSMUSG00000045328, ENSMUSG00000031004,	1	9	ENSMUSG00000031134, ENSMUSG00000009471, ENSMUSG00000020889, ENSMUSG00000031245, ENSMUSG00000062270, ENSMUSG00000046532, ENSMUSG00000031176, ENSMUSG00000032216, ENSMUSG00000025862



				<p>ENSMUSG00000028873, ENSMUSG00000058773,  ENSMUSG00000021714, ENSMUSG00000002055,  ENSMUSG00000068101, ENSMUSG00000027379,  ENSMUSG00000024056, ENSMUSG00000035365,  ENSMUSG00000027331, ENSMUSG00000029414,  ENSMUSG00000026683, ENSMUSG00000069273,  ENSMUSG0000001228, ENSMUSG00000026039,  ENSMUSG00000070691, ENSMUSG00000041431,  ENSMUSG00000040084, ENSMUSG00000036223,  ENSMUSG0000002307, ENSMUSG00000069910,  ENSMUSG00000025001, ENSMUSG00000031756,  ENSMUSG00000020897, ENSMUSG00000005470,  ENSMUSG00000028678, ENSMUSG00000030867,  ENSMUSG00000074476, ENSMUSG00000017861,  ENSMUSG00000063021, ENSMUSG00000023940,  ENSMUSG00000041064</p>			
GO: 0005 856	cytoskeleton	1	67	<p>ENSMUSG00000017716, ENSMUSG00000079553,  ENSMUSG00000015880, ENSMUSG00000050107,  ENSMUSG00000027699, ENSMUSG00000024989,  ENSMUSG00000068744, ENSMUSG00000019942,  ENSMUSG00000006398, ENSMUSG00000002055,  ENSMUSG00000022534, ENSMUSG00000067615,  ENSMUSG00000027331, ENSMUSG00000053395,  ENSMUSG00000025473, ENSMUSG00000028718,  ENSMUSG00000032322, ENSMUSG00000030525,  ENSMUSG00000041431, ENSMUSG00000027306,</p>	0.000371108	106	<p>ENSMUSG00000025889, ENSMUSG00000055775,  ENSMUSG00000050463, ENSMUSG00000041984,  ENSMUSG00000020524, ENSMUSG00000039952,  ENSMUSG00000025597, ENSMUSG00000021909,  ENSMUSG00000044156, ENSMUSG00000042451,  ENSMUSG00000026668, ENSMUSG00000031812,  ENSMUSG00000056328, ENSMUSG00000006777,  ENSMUSG00000027401, ENSMUSG00000074673,  ENSMUSG00000044041, ENSMUSG00000031176,  ENSMUSG00000061527, ENSMUSG00000041991,</p>

			ENSMUSG00000037313, ENSMUSG00000024795, ENSMUSG00000037474, ENSMUSG00000026656, ENSMUSG00000051378, ENSMUSG00000002068, ENSMUSG00000020897, ENSMUSG00000050635, ENSMUSG00000017499, ENSMUSG00000003283, ENSMUSG00000026582, ENSMUSG00000037544, ENSMUSG00000028678, ENSMUSG00000030867, ENSMUSG00000012443, ENSMUSG00000079597, ENSMUSG00000024397, ENSMUSG00000067613, ENSMUSG00000058290, ENSMUSG00000033952, ENSMUSG00000027496, ENSMUSG00000026605, ENSMUSG00000024696, ENSMUSG00000030677, ENSMUSG00000045328, ENSMUSG00000028873, ENSMUSG00000017146, ENSMUSG00000041498, ENSMUSG00000028874, ENSMUSG00000019845, ENSMUSG00000027469, ENSMUSG00000037725, ENSMUSG00000048327, ENSMUSG00000029414, ENSMUSG00000054215, ENSMUSG00000036223, ENSMUSG00000023015, ENSMUSG00000026981, ENSMUSG00000069910, ENSMUSG00000038943, ENSMUSG00000022385, ENSMUSG00000067614, ENSMUSG00000072082, ENSMUSG00000023940, ENSMUSG00000036768, ENSMUSG00000026779, ENSMUSG00000032218		ENSMUSG00000037287, ENSMUSG00000061397, ENSMUSG00000046095, ENSMUSG00000008035, ENSMUSG00000001349, ENSMUSG00000064179, ENSMUSG00000019359, ENSMUSG00000062380, ENSMUSG00000031214, ENSMUSG00000027470, ENSMUSG00000091898, ENSMUSG00000048455, ENSMUSG00000056267, ENSMUSG00000014846, ENSMUSG00000047746, ENSMUSG00000061723, ENSMUSG00000039585, ENSMUSG00000092137, ENSMUSG00000067594, ENSMUSG00000024471, ENSMUSG00000020061, ENSMUSG00000059741, ENSMUSG00000030554, ENSMUSG00000031355, ENSMUSG00000079480, ENSMUSG00000041729, ENSMUSG00000052374, ENSMUSG00000025265, ENSMUSG00000068270, ENSMUSG00000025810, ENSMUSG00000063651, ENSMUSG00000032366, ENSMUSG00000033196, ENSMUSG00000024500, ENSMUSG00000057003, ENSMUSG00000030672, ENSMUSG00000032010, ENSMUSG00000033577, ENSMUSG0000006457, ENSMUSG00000001986, ENSMUSG00000041688, ENSMUSG00000078658, ENSMUSG00000052698, ENSMUSG00000031972, ENSMUSG00000032232, ENSMUSG00000061816, ENSMUSG00000017300, ENSMUSG00000064201, ENSMUSG00000041361, ENSMUSG00000067653, ENSMUSG00000020623, ENSMUSG0000006574,
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							<p>ENSMUSG00000078252, ENSMUSG00000032060,  ENSMUSG00000046834, ENSMUSG00000030244,  ENSMUSG00000060180, ENSMUSG00000029361,  ENSMUSG00000073465, ENSMUSG00000000881,  ENSMUSG00000020469, ENSMUSG00000026532,  ENSMUSG00000040752, ENSMUSG00000035458,  ENSMUSG00000089996, ENSMUSG00000063661,  ENSMUSG0000001134, ENSMUSG00000007815,  ENSMUSG0000005355, ENSMUSG00000053093,  ENSMUSG00000033590, ENSMUSG00000021573,  ENSMUSG00000068697, ENSMUSG00000043165,  ENSMUSG00000028116, ENSMUSG00000031097,  ENSMUSG0000000266, ENSMUSG00000025812,  ENSMUSG00000045103, ENSMUSG00000034467,  ENSMUSG00000075307, ENSMUSG00000059668,  ENSMUSG00000026418, ENSMUSG00000026961,  ENSMUSG00000075402, ENSMUSG00000028307</p>
GO: 0015 630	microtubule cytoskeleton	0.00245386 4	51	<p>ENSMUSG00000017716, ENSMUSG00000079553,  ENSMUSG00000015880, ENSMUSG00000050107,  ENSMUSG00000027699, ENSMUSG00000024989,  ENSMUSG00000026605, ENSMUSG00000030677,  ENSMUSG00000068744, ENSMUSG00000019942,  ENSMUSG00000045328, ENSMUSG00000006398,  ENSMUSG00000028873, ENSMUSG000000041498,  ENSMUSG00000017146, ENSMUSG00000002055,  ENSMUSG00000019845, ENSMUSG00000037725,</p>	1	19	<p>ENSMUSG00000062380, ENSMUSG00000001134,  ENSMUSG00000014846, ENSMUSG00000056267,  ENSMUSG00000032010, ENSMUSG00000047746,  ENSMUSG00000025597, ENSMUSG00000021573,  ENSMUSG00000031812, ENSMUSG00000000266,  ENSMUSG00000034467, ENSMUSG00000025812,  ENSMUSG00000074673, ENSMUSG00000031176,  ENSMUSG00000075307, ENSMUSG00000032060,  ENSMUSG00000079480, ENSMUSG00000008035,</p>

				<p>ENSMUSG00000027469, ENSMUSG00000022534,  ENSMUSG00000027331, ENSMUSG00000029414,  ENSMUSG00000048327, ENSMUSG00000028718,  ENSMUSG00000041431, ENSMUSG00000036223,  ENSMUSG00000027306, ENSMUSG00000037313,  ENSMUSG00000023015, ENSMUSG00000024795,  ENSMUSG00000026981, ENSMUSG00000037474,  ENSMUSG00000069910, ENSMUSG00000051378,  ENSMUSG0000002068, ENSMUSG00000020897,  ENSMUSG00000038943, ENSMUSG00000017499,  ENSMUSG00000037544, ENSMUSG00000028678,  ENSMUSG00000012443, ENSMUSG00000030867,  ENSMUSG00000022385, ENSMUSG00000023940,  ENSMUSG00000072082, ENSMUSG00000036768,  ENSMUSG00000026779, ENSMUSG00000033952,  ENSMUSG00000058290, ENSMUSG00000032218,  ENSMUSG00000027496</p>			<p>ENSMUSG00000028307</p>
<p>GO:  0005  694</p>	<p>chromosome</p>	<p>4.27E-06</p>	<p>50</p>	<p>ENSMUSG00000075266, ENSMUSG00000017716,  ENSMUSG00000069302, ENSMUSG00000015880,  ENSMUSG00000022034, ENSMUSG00000024791,  ENSMUSG00000050107, ENSMUSG00000045273,  ENSMUSG00000026605, ENSMUSG00000075031,  ENSMUSG00000026646, ENSMUSG00000030677,  ENSMUSG00000005410, ENSMUSG00000045328,  ENSMUSG00000031004, ENSMUSG00000028873,  ENSMUSG00000058773, ENSMUSG00000021714,</p>	<p>1</p>	<p>9</p>	<p>ENSMUSG00000031134, ENSMUSG00000009471,  ENSMUSG00000020889, ENSMUSG00000031245,  ENSMUSG00000062270, ENSMUSG00000046532,  ENSMUSG00000031176, ENSMUSG00000032216,  ENSMUSG00000025862</p>

				<p>ENSMUSG00000017146, ENSMUSG00000002055,  ENSMUSG00000068101, ENSMUSG00000027379,  ENSMUSG00000024056, ENSMUSG00000035365,  ENSMUSG00000027331, ENSMUSG00000042489,  ENSMUSG00000029414, ENSMUSG00000026683,  ENSMUSG00000069273, ENSMUSG00000001228,  ENSMUSG00000026039, ENSMUSG00000070691,  ENSMUSG00000041431, ENSMUSG00000040084,  ENSMUSG00000036223, ENSMUSG00000027306,  ENSMUSG00000002307, ENSMUSG00000069910,  ENSMUSG00000025001, ENSMUSG00000031756,  ENSMUSG00000020897, ENSMUSG00000005470,  ENSMUSG00000071350, ENSMUSG00000028678,  ENSMUSG00000030867, ENSMUSG00000074476,  ENSMUSG00000017861, ENSMUSG00000063021,  ENSMUSG00000023940, ENSMUSG00000041064</p>			
GO: 0043 292	contractile fiber	1	0		7.97E-22	42	<p>ENSMUSG00000009471, ENSMUSG00000030730,  ENSMUSG00000032366, ENSMUSG00000033196,  ENSMUSG00000057003, ENSMUSG00000031312,  ENSMUSG00000007122, ENSMUSG00000047419,  ENSMUSG00000039952, ENSMUSG00000021909,  ENSMUSG00000006457, ENSMUSG00000025172,  ENSMUSG00000031972, ENSMUSG00000017300,  ENSMUSG00000061816, ENSMUSG00000056328,  ENSMUSG00000041361, ENSMUSG00000061086,  ENSMUSG00000067653, ENSMUSG00000032839,</p>

							ENSMUSG00000006574, ENSMUSG000000032060, ENSMUSG00000007877, ENSMUSG000000060180, ENSMUSG000000020469, ENSMUSG000000040752, ENSMUSG000000064179, ENSMUSG000000035458, ENSMUSG000000027077, ENSMUSG000000091898, ENSMUSG000000053093, ENSMUSG000000061723, ENSMUSG000000028116, ENSMUSG000000031097, ENSMUSG000000092137, ENSMUSG000000045103, ENSMUSG000000041476, ENSMUSG000000059741, ENSMUSG000000030554, ENSMUSG000000026418, ENSMUSG000000049173, ENSMUSG000000052374
GO: 0044 215	other organism	1.79E-11	11	ENSMUSG000000028269, ENSMUSG000000069874, ENSMUSG000000079362, ENSMUSG000000028268, ENSMUSG000000040253, ENSMUSG000000024339, ENSMUSG000000028270, ENSMUSG000000029298, ENSMUSG000000054072, ENSMUSG000000037321, ENSMUSG000000034459	1	0	
GO: 0005 865	striated muscle thin filament	1	0		2.36E-11	12	ENSMUSG000000061723, ENSMUSG000000031097, ENSMUSG000000064179, ENSMUSG000000035458, ENSMUSG000000032366, ENSMUSG000000091898, ENSMUSG000000026418, ENSMUSG000000052374, ENSMUSG00000006457, ENSMUSG000000021909, ENSMUSG000000031972, ENSMUSG000000017300
GO: 0043 245	extraorganismal space	1.79E-11	11	ENSMUSG000000028269, ENSMUSG000000069874, ENSMUSG000000079362, ENSMUSG000000028268, ENSMUSG000000040253, ENSMUSG000000024339,	1	0	

				ENSMUSG00000028270, ENSMUSG00000029298, ENSMUSG00000054072, ENSMUSG00000037321, ENSMUSG00000034459			
GO: 0065 010	extracellular membrane-bounded organelle	3.24E-05	8	ENSMUSG00000040253, ENSMUSG00000028270, ENSMUSG00000028269, ENSMUSG00000069874, ENSMUSG00000029298, ENSMUSG00000079362, ENSMUSG00000054072, ENSMUSG00000028268	1	3	ENSMUSG00000031134, ENSMUSG00000027376, ENSMUSG00000018566
GO: 0032 982	myosin filament	1	0		1.82E-05	8	ENSMUSG00000056328, ENSMUSG00000055775, ENSMUSG00000033196, ENSMUSG00000057003, ENSMUSG00000053093, ENSMUSG00000060180, ENSMUSG00000042451, ENSMUSG00000040752
GO: 0044 217	other organism part	1.79E-11	11	ENSMUSG00000028269, ENSMUSG00000069874, ENSMUSG00000079362, ENSMUSG00000028268, ENSMUSG00000040253, ENSMUSG00000024339, ENSMUSG00000028270, ENSMUSG00000029298, ENSMUSG00000054072, ENSMUSG00000037321, ENSMUSG00000034459	1	0	
GO: 0033 643	host cell part	4.37E-08	8	ENSMUSG00000040253, ENSMUSG00000028270, ENSMUSG00000028269, ENSMUSG00000069874, ENSMUSG00000029298, ENSMUSG00000079362, ENSMUSG00000054072, ENSMUSG00000028268	1	0	
GO: 0031 225	anchored to membrane	3.08E-07	23	ENSMUSG00000013643, ENSMUSG00000030954, ENSMUSG00000038209, ENSMUSG0000003617, ENSMUSG00000024124, ENSMUSG00000051439, ENSMUSG00000043811, ENSMUSG00000050896, ENSMUSG00000075602, ENSMUSG00000031898,	1	11	ENSMUSG00000044287, ENSMUSG00000055653, ENSMUSG00000039114, ENSMUSG00000019278, ENSMUSG00000023328, ENSMUSG00000020183, ENSMUSG00000057454, ENSMUSG00000031841, ENSMUSG00000022595, ENSMUSG00000073413,

				ENSMUSG00000023903, ENSMUSG00000037440, ENSMUSG00000078452, ENSMUSG00000022586, ENSMUSG00000052212, ENSMUSG00000022582, ENSMUSG00000022587, ENSMUSG00000046718, ENSMUSG00000038304, ENSMUSG00000020010, ENSMUSG00000030651, ENSMUSG00000022583, ENSMUSG00000022584			ENSMUSG00000010047
GO: 0045 335	phagocytic vesicle	0.00273988 1	6	ENSMUSG00000047517, ENSMUSG00000045322, ENSMUSG00000044827, ENSMUSG00000044583, ENSMUSG00000026177, ENSMUSG00000025473	1	0	
GO: 0005 819	spindle	1.02E-07	24	ENSMUSG00000017716, ENSMUSG00000050107, ENSMUSG00000027699, ENSMUSG00000041431, ENSMUSG00000036223, ENSMUSG00000026605, ENSMUSG00000027306, ENSMUSG00000023015, ENSMUSG00000069910, ENSMUSG00000030677, ENSMUSG00000068744, ENSMUSG00000019942, ENSMUSG00000020897, ENSMUSG00000038943, ENSMUSG00000017499, ENSMUSG00000037544, ENSMUSG00000030867, ENSMUSG00000012443, ENSMUSG0000002055, ENSMUSG00000027469, ENSMUSG00000023940, ENSMUSG00000033952, ENSMUSG00000029414, ENSMUSG00000027496	1	2	ENSMUSG00000079480, ENSMUSG00000025812
GO: 0015 629	actin cytoskeleton	1	6	ENSMUSG00000024397, ENSMUSG00000015880, ENSMUSG00000024696, ENSMUSG00000028874, ENSMUSG00000032322, ENSMUSG00000025473	3.01E-10	44	ENSMUSG00000068270, ENSMUSG00000032366, ENSMUSG00000025889, ENSMUSG00000055775, ENSMUSG00000033196, ENSMUSG00000057003, ENSMUSG00000030672, ENSMUSG00000033577,



						<p>ENSMUSG00000021909, ENSMUSG00000006457,  ENSMUSG00000041688, ENSMUSG00000052698,  ENSMUSG00000031972, ENSMUSG00000032232,  ENSMUSG00000017300, ENSMUSG00000061816,  ENSMUSG00000042451, ENSMUSG00000056328,  ENSMUSG00000041361, ENSMUSG00000067653,  ENSMUSG00000032060, ENSMUSG00000060180,  ENSMUSG00000030244, ENSMUSG00000020469,  ENSMUSG00000026532, ENSMUSG00000040752,  ENSMUSG00000064179, ENSMUSG00000035458,  ENSMUSG00000031214, ENSMUSG00000089996,  ENSMUSG00000091898, ENSMUSG00000053093,  ENSMUSG00000033590, ENSMUSG00000068697,  ENSMUSG00000061723, ENSMUSG00000028116,  ENSMUSG00000031097, ENSMUSG00000039585,  ENSMUSG00000092137, ENSMUSG00000059741,  ENSMUSG00000031355, ENSMUSG00000041729,  ENSMUSG00000026418, ENSMUSG00000052374</p>	
GO: 0005 624	membrane fraction	1	17	<p>ENSMUSG00000031898, ENSMUSG00000030148,  ENSMUSG00000003665, ENSMUSG00000039519,  ENSMUSG00000031444, ENSMUSG00000030525,  ENSMUSG00000041431, ENSMUSG00000026580,  ENSMUSG00000024339, ENSMUSG00000003555,  ENSMUSG00000026475, ENSMUSG00000031891,  ENSMUSG00000041347, ENSMUSG00000023045,  ENSMUSG00000037321, ENSMUSG00000041831,</p>	3.74E-05	66	<p>ENSMUSG00000030302, ENSMUSG00000032547,  ENSMUSG00000074254, ENSMUSG00000025889,  ENSMUSG00000070570, ENSMUSG00000007122,  ENSMUSG00000040867, ENSMUSG00000027849,  ENSMUSG00000020524, ENSMUSG00000002588,  ENSMUSG00000013418, ENSMUSG00000032310,  ENSMUSG00000028356, ENSMUSG00000010051,  ENSMUSG00000037071, ENSMUSG00000038776,</p>

				ENSMUSG00000032218			ENSMUSG00000032076, ENSMUSG00000078597, ENSMUSG00000004892, ENSMUSG00000066072, ENSMUSG00000052974, ENSMUSG00000032086, ENSMUSG00000040181, ENSMUSG00000059412, ENSMUSG00000032315, ENSMUSG00000047182, ENSMUSG00000027820, ENSMUSG00000044338, ENSMUSG00000032491, ENSMUSG00000023013, ENSMUSG00000015405, ENSMUSG00000030554, ENSMUSG00000059481, ENSMUSG00000050195, ENSMUSG00000030730, ENSMUSG0000003053, ENSMUSG00000024500, ENSMUSG00000055980, ENSMUSG00000052911, ENSMUSG00000057182, ENSMUSG00000031844, ENSMUSG00000006269, ENSMUSG00000033577, ENSMUSG00000001986, ENSMUSG00000018566, ENSMUSG00000033595, ENSMUSG00000036813, ENSMUSG00000031489, ENSMUSG00000026691, ENSMUSG00000048142, ENSMUSG00000032216, ENSMUSG00000066071, ENSMUSG00000029361, ENSMUSG00000073424, ENSMUSG00000057880, ENSMUSG00000019326, ENSMUSG00000032570, ENSMUSG00000007815, ENSMUSG00000019478, ENSMUSG000000031144, ENSMUSG00000045103, ENSMUSG00000030747, ENSMUSG00000048758, ENSMUSG00000022206, ENSMUSG00000028307, ENSMUSG00000012187
GO:	keratin filament	1	0		8.51E-05	10	ENSMUSG00000064201, ENSMUSG00000059668,

0045 095							ENSMUSG0000005355, ENSMUSG00000046834, ENSMUSG00000075402, ENSMUSG00000067594, ENSMUSG00000044041, ENSMUSG00000061397, ENSMUSG00000061527, ENSMUSG00000063661
GO: 0005 876	spindle microtubule	0.00186310 6	9	ENSMUSG00000019942, ENSMUSG00000017716, ENSMUSG00000002055, ENSMUSG00000030867, ENSMUSG00000036223, ENSMUSG00000027469, ENSMUSG00000027306, ENSMUSG00000027496, ENSMUSG00000029414	1	0	
GO: 0044 459	plasma membrane part	2.27E-07	108	ENSMUSG00000039364, ENSMUSG00000017716, ENSMUSG00000060802, ENSMUSG00000001773, ENSMUSG00000058755, ENSMUSG00000024112, ENSMUSG00000027995, ENSMUSG00000048534, ENSMUSG00000027699, ENSMUSG00000003617, ENSMUSG00000047197, ENSMUSG00000049103, ENSMUSG00000061232, ENSMUSG00000028613, ENSMUSG00000053977, ENSMUSG00000060550, ENSMUSG00000050232, ENSMUSG00000028072, ENSMUSG00000000817, ENSMUSG00000078452, ENSMUSG00000030786, ENSMUSG00000025804, ENSMUSG00000046718, ENSMUSG00000051498, ENSMUSG00000020651, ENSMUSG00000029816, ENSMUSG00000030156, ENSMUSG00000034855, ENSMUSG00000028262, ENSMUSG00000026770, ENSMUSG00000030651, ENSMUSG00000053395, ENSMUSG00000025473, ENSMUSG00000045322,	0.222225278	88	ENSMUSG00000030302, ENSMUSG00000034783, ENSMUSG00000007122, ENSMUSG00000032511, ENSMUSG00000090877, ENSMUSG00000026824, ENSMUSG00000020524, ENSMUSG00000039952, ENSMUSG00000090639, ENSMUSG00000071317, ENSMUSG00000067951, ENSMUSG00000026874, ENSMUSG00000027401, ENSMUSG00000032839, ENSMUSG00000017697, ENSMUSG00000032076, ENSMUSG00000040055, ENSMUSG00000024027, ENSMUSG00000013076, ENSMUSG00000066072, ENSMUSG00000056632, ENSMUSG00000032086, ENSMUSG00000030278, ENSMUSG00000032034, ENSMUSG00000059412, ENSMUSG00000028427, ENSMUSG00000038201, ENSMUSG00000059327, ENSMUSG00000032491, ENSMUSG00000022040, ENSMUSG00000023013, ENSMUSG00000092137, ENSMUSG00000029205, ENSMUSG00000050520,

			ENSMUSG00000030954, ENSMUSG00000027219, ENSMUSG00000030149, ENSMUSG00000030525, ENSMUSG00000025739, ENSMUSG00000026656, ENSMUSG00000050241, ENSMUSG00000029075, ENSMUSG00000028459, ENSMUSG00000030124, ENSMUSG00000026582, ENSMUSG00000003283, ENSMUSG00000022094, ENSMUSG00000056025, ENSMUSG00000079620, ENSMUSG00000028068, ENSMUSG00000024397, ENSMUSG00000022582, ENSMUSG00000047330, ENSMUSG00000071715, ENSMUSG00000026009, ENSMUSG00000053219, ENSMUSG00000021451, ENSMUSG00000038963, ENSMUSG00000040528, ENSMUSG00000071005, ENSMUSG00000029417, ENSMUSG00000038209, ENSMUSG00000029811, ENSMUSG00000024696, ENSMUSG00000079451, ENSMUSG00000030677, ENSMUSG00000075602, ENSMUSG00000073411, ENSMUSG0000001901, ENSMUSG00000075122, ENSMUSG00000004952, ENSMUSG00000047230, ENSMUSG00000028874, ENSMUSG00000030365, ENSMUSG00000028217, ENSMUSG00000026011, ENSMUSG00000030167, ENSMUSG00000026285, ENSMUSG00000019320, ENSMUSG00000059089, ENSMUSG00000079227, ENSMUSG00000049608, ENSMUSG00000067212, ENSMUSG00000016496, ENSMUSG00000055170, ENSMUSG00000028965,			ENSMUSG00000032548, ENSMUSG00000059481, ENSMUSG00000031997, ENSMUSG00000052374, ENSMUSG00000019894, ENSMUSG00000032531, ENSMUSG00000040412, ENSMUSG00000068270, ENSMUSG00000033831, ENSMUSG00000038064, ENSMUSG00000032366, ENSMUSG00000055980, ENSMUSG00000046480, ENSMUSG00000001943, ENSMUSG00000057182, ENSMUSG00000031841, ENSMUSG00000006269, ENSMUSG00000033577, ENSMUSG00000032554, ENSMUSG00000006457, ENSMUSG00000001986, ENSMUSG00000041688, ENSMUSG000000061259, ENSMUSG00000052698, ENSMUSG00000018566, ENSMUSG00000032232, ENSMUSG00000047797, ENSMUSG00000041361, ENSMUSG00000006574, ENSMUSG00000041523, ENSMUSG00000038119, ENSMUSG00000073424, ENSMUSG00000040752, ENSMUSG00000051726, ENSMUSG00000055653, ENSMUSG00000010064, ENSMUSG00000001946, ENSMUSG00000007815, ENSMUSG00000053093, ENSMUSG00000035459, ENSMUSG00000021573, ENSMUSG00000043165, ENSMUSG00000029669, ENSMUSG00000044359, ENSMUSG00000025812, ENSMUSG00000045103, ENSMUSG00000069441, ENSMUSG00000041476, ENSMUSG00000031377, ENSMUSG00000026961, ENSMUSG00000037624, ENSMUSG00000040808,
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				ENSMUSG00000057135, ENSMUSG00000068227, ENSMUSG00000067341, ENSMUSG00000027843, ENSMUSG00000062082, ENSMUSG00000058715, ENSMUSG00000035929, ENSMUSG00000000791, ENSMUSG00000050896, ENSMUSG00000015947, ENSMUSG00000022901, ENSMUSG00000044827, ENSMUSG00000056290, ENSMUSG00000079298, ENSMUSG00000024401, ENSMUSG00000073409, ENSMUSG00000012428, ENSMUSG00000026580, ENSMUSG00000067610, ENSMUSG00000025746, ENSMUSG00000038304, ENSMUSG00000026271			ENSMUSG00000010047, ENSMUSG00000061974
GO: 0020 005	symbiont-containing vacuole membrane	2.76E-08	7	ENSMUSG00000040253, ENSMUSG00000028270, ENSMUSG00000028269, ENSMUSG00000029298, ENSMUSG00000079362, ENSMUSG00000054072, ENSMUSG00000028268	1	0	
GO: 0000 775	chromosome, centromeric region	8.42E-11	28	ENSMUSG00000075266, ENSMUSG00000017716, ENSMUSG00000026683, ENSMUSG00000045273, ENSMUSG00000026039, ENSMUSG00000041431, ENSMUSG00000040084, ENSMUSG00000036223, ENSMUSG00000026605, ENSMUSG00000069910, ENSMUSG00000025001, ENSMUSG00000026646, ENSMUSG00000045328, ENSMUSG00000031756, ENSMUSG00000020897, ENSMUSG00000028873, ENSMUSG00000031004, ENSMUSG00000021714, ENSMUSG00000028678, ENSMUSG00000030867, ENSMUSG0000002055, ENSMUSG00000074476,	1	2	ENSMUSG00000025862, ENSMUSG00000031176

				ENSMUSG00000068101, ENSMUSG00000027379, ENSMUSG00000024056, ENSMUSG00000023940, ENSMUSG00000027331, ENSMUSG00000029414			
GO: 0030 017	sarcomere	1	0		1.04E-20	36	ENSMUSG00000030730, ENSMUSG00000032366, ENSMUSG00000033196, ENSMUSG00000031312, ENSMUSG00000007122, ENSMUSG00000021909, ENSMUSG00000006457, ENSMUSG00000025172, ENSMUSG00000031972, ENSMUSG00000017300, ENSMUSG00000056328, ENSMUSG00000041361, ENSMUSG00000061086, ENSMUSG00000067653, ENSMUSG00000032839, ENSMUSG00000006574, ENSMUSG00000032060, ENSMUSG00000007877, ENSMUSG00000020469, ENSMUSG00000040752, ENSMUSG00000064179, ENSMUSG00000035458, ENSMUSG00000027077, ENSMUSG00000091898, ENSMUSG00000053093, ENSMUSG00000061723, ENSMUSG00000031097, ENSMUSG00000028116, ENSMUSG00000092137, ENSMUSG00000045103, ENSMUSG00000041476, ENSMUSG00000059741, ENSMUSG00000030554, ENSMUSG00000049173, ENSMUSG00000052374, ENSMUSG00000026418
GO: 0005 578	proteinaceous extracellular matrix	1	20	ENSMUSG00000025044, ENSMUSG00000036905, ENSMUSG00000006403, ENSMUSG00000005800, ENSMUSG00000035493, ENSMUSG00000036887, ENSMUSG00000037974, ENSMUSG00000024330, ENSMUSG00000050578, ENSMUSG00000047517,	0.009279574	30	ENSMUSG00000040533, ENSMUSG00000033327, ENSMUSG00000044892, ENSMUSG00000055653, ENSMUSG00000029368, ENSMUSG00000040488, ENSMUSG00000025889, ENSMUSG00000039269, ENSMUSG00000052911, ENSMUSG00000023328,

				ENSMUSG00000030077, ENSMUSG00000033453, ENSMUSG00000033880, ENSMUSG00000018486, ENSMUSG00000001131, ENSMUSG00000036896, ENSMUSG00000024529, ENSMUSG00000021614, ENSMUSG00000036596, ENSMUSG00000020053			ENSMUSG00000031274, ENSMUSG00000039952, ENSMUSG00000090639, ENSMUSG00000032554, ENSMUSG00000059327, ENSMUSG00000043719, ENSMUSG00000032332, ENSMUSG00000030607, ENSMUSG00000026668, ENSMUSG00000041559, ENSMUSG00000022996, ENSMUSG00000030606, ENSMUSG00000058914, ENSMUSG00000025784, ENSMUSG00000057606, ENSMUSG00000055632, ENSMUSG00000036655, ENSMUSG00000071347, ENSMUSG00000022878, ENSMUSG00000091345
GO: 0009 986	cell surface	2.70E-12	61	ENSMUSG00000060802, ENSMUSG00000027995, ENSMUSG00000038642, ENSMUSG00000071005, ENSMUSG00000029417, ENSMUSG00000071068, ENSMUSG00000047197, ENSMUSG00000061232, ENSMUSG00000051439, ENSMUSG00000029378, ENSMUSG00000073406, ENSMUSG00000053063, ENSMUSG00000053977, ENSMUSG00000075602, ENSMUSG00000073411, ENSMUSG00000050232, ENSMUSG00000028072, ENSMUSG00000000817, ENSMUSG00000075122, ENSMUSG00000078452, ENSMUSG00000029915, ENSMUSG00000030786, ENSMUSG00000030365, ENSMUSG00000026011, ENSMUSG00000030167, ENSMUSG00000026285, ENSMUSG00000025804, ENSMUSG00000059089, ENSMUSG00000079227, ENSMUSG00000030156, ENSMUSG00000034855, ENSMUSG00000026770,	1	25	ENSMUSG00000025810, ENSMUSG00000033831, ENSMUSG00000019326, ENSMUSG00000023328, ENSMUSG00000032511, ENSMUSG00000032034, ENSMUSG00000031841, ENSMUSG00000026824, ENSMUSG00000021319, ENSMUSG00000035459, ENSMUSG00000061393, ENSMUSG00000041688, ENSMUSG00000061259, ENSMUSG00000000049, ENSMUSG0000006373, ENSMUSG00000018566, ENSMUSG00000045103, ENSMUSG00000031494, ENSMUSG00000017697, ENSMUSG00000015405, ENSMUSG00000027442, ENSMUSG00000059481, ENSMUSG00000032060, ENSMUSG00000038119, ENSMUSG00000010047

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GO: 0044 444	cytoplasmic part	1	146	<p>ENSMUSG00000017716, ENSMUSG00000027995,  ENSMUSG00000031098, ENSMUSG00000050107,  ENSMUSG00000024857, ENSMUSG00000049103,  ENSMUSG00000044165, ENSMUSG00000078853,  ENSMUSG00000025877, ENSMUSG00000019942,  ENSMUSG00000030268, ENSMUSG00000021190,  ENSMUSG00000022831, ENSMUSG00000020848,  ENSMUSG00000000817, ENSMUSG00000033644,  ENSMUSG00000040264, ENSMUSG00000023045,  ENSMUSG00000037321, ENSMUSG00000031551,  ENSMUSG00000036912, ENSMUSG00000025473,</p>	0.000431512	277	<p>ENSMUSG00000042045, ENSMUSG00000030302,  ENSMUSG00000032263, ENSMUSG00000025889,  ENSMUSG00000079334, ENSMUSG00000054422,  ENSMUSG00000023328, ENSMUSG00000007122,  ENSMUSG00000027849, ENSMUSG00000032320,  ENSMUSG00000090639, ENSMUSG00000032549,  ENSMUSG00000021909, ENSMUSG00000057074,  ENSMUSG00000013418, ENSMUSG00000025172,  ENSMUSG00000032454, ENSMUSG00000033208,  ENSMUSG00000033350, ENSMUSG00000073940,  ENSMUSG00000032449, ENSMUSG00000061527,</p>



			ENSMUSG00000038037, ENSMUSG00000069874, ENSMUSG00000045322, ENSMUSG00000025492, ENSMUSG00000055994, ENSMUSG00000024353, ENSMUSG00000063268, ENSMUSG00000041431, ENSMUSG00000037313, ENSMUSG00000000982, ENSMUSG00000029304, ENSMUSG00000037474, ENSMUSG00000002307, ENSMUSG00000030218, ENSMUSG00000026582, ENSMUSG00000022094, ENSMUSG00000037544, ENSMUSG00000028268, ENSMUSG00000022876, ENSMUSG00000071715, ENSMUSG00000042345, ENSMUSG00000028480, ENSMUSG00000027496, ENSMUSG00000040483, ENSMUSG00000074151, ENSMUSG00000026822, ENSMUSG00000047517, ENSMUSG00000005667, ENSMUSG00000037202, ENSMUSG00000027199, ENSMUSG00000031504, ENSMUSG00000024842, ENSMUSG00000062007, ENSMUSG00000030345, ENSMUSG00000037725, ENSMUSG00000027398, ENSMUSG00000048327, ENSMUSG00000044201, ENSMUSG00000027843, ENSMUSG00000049303, ENSMUSG00000070524, ENSMUSG00000003555, ENSMUSG00000023015, ENSMUSG00000038301, ENSMUSG00000078920, ENSMUSG00000039519, ENSMUSG00000036986, ENSMUSG00000024401, ENSMUSG00000050370, ENSMUSG00000026580, ENSMUSG00000072082, ENSMUSG00000033213,			ENSMUSG00000074183, ENSMUSG00000044037, ENSMUSG00000032649, ENSMUSG00000074218, ENSMUSG00000057933, ENSMUSG00000037010, ENSMUSG00000032076, ENSMUSG00000008035, ENSMUSG00000034584, ENSMUSG00000040181, ENSMUSG00000032527, ENSMUSG00000032315, ENSMUSG00000047182, ENSMUSG00000027820, ENSMUSG00000052217, ENSMUSG00000061723, ENSMUSG00000032356, ENSMUSG00000050520, ENSMUSG00000059741, ENSMUSG00000079480, ENSMUSG00000029499, ENSMUSG00000003053, ENSMUSG00000030730, ENSMUSG00000033196, ENSMUSG00000031059, ENSMUSG00000035686, ENSMUSG00000047419, ENSMUSG00000035847, ENSMUSG00000032554, ENSMUSG00000006269, ENSMUSG00000031320, ENSMUSG00000006457, ENSMUSG00000041688, ENSMUSG00000025037, ENSMUSG00000017300, ENSMUSG00000047797, ENSMUSG00000005705, ENSMUSG00000006574, ENSMUSG00000032060, ENSMUSG00000030244, ENSMUSG00000029361, ENSMUSG00000055609, ENSMUSG00000040752, ENSMUSG00000009927, ENSMUSG00000032349, ENSMUSG00000041658, ENSMUSG00000035458, ENSMUSG00000020096, ENSMUSG00000032249, ENSMUSG00000021622, ENSMUSG00000025815, ENSMUSG00000053093,
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			ENSMUSG00000015880, ENSMUSG00000022026, ENSMUSG00000006930, ENSMUSG00000024989, ENSMUSG00000006398, ENSMUSG00000068744, ENSMUSG00000028072, ENSMUSG00000059565, ENSMUSG00000040253, ENSMUSG00000023341, ENSMUSG00000051498, ENSMUSG00000046718, ENSMUSG00000029816, ENSMUSG00000054072, ENSMUSG00000079019, ENSMUSG00000028718, ENSMUSG00000079362, ENSMUSG00000022548, ENSMUSG00000032322, ENSMUSG00000050578, ENSMUSG00000040084, ENSMUSG00000028270, ENSMUSG00000038357, ENSMUSG00000024795, ENSMUSG0000002068, ENSMUSG00000001156, ENSMUSG00000030793, ENSMUSG00000003283, ENSMUSG00000079620, ENSMUSG00000030867, ENSMUSG00000022622, ENSMUSG00000024397, ENSMUSG00000036362, ENSMUSG00000044583, ENSMUSG00000058290, ENSMUSG00000055629, ENSMUSG00000025044, ENSMUSG00000003484, ENSMUSG00000038642, ENSMUSG00000028255, ENSMUSG00000029298, ENSMUSG00000020641, ENSMUSG00000060519, ENSMUSG00000020638, ENSMUSG00000017146, ENSMUSG00000028874, ENSMUSG00000037860, ENSMUSG00000026088, ENSMUSG00000026011, ENSMUSG00000029366, ENSMUSG00000079227, ENSMUSG00000037628,			ENSMUSG00000028116, ENSMUSG00000045103, ENSMUSG00000024653, ENSMUSG00000029695, ENSMUSG00000020532, ENSMUSG00000020475, ENSMUSG00000009471, ENSMUSG00000020123, ENSMUSG00000017204, ENSMUSG00000032262, ENSMUSG00000029153, ENSMUSG00000044156, ENSMUSG00000031209, ENSMUSG00000032310, ENSMUSG00000073131, ENSMUSG00000032418, ENSMUSG00000026668, ENSMUSG00000031176, ENSMUSG00000037071, ENSMUSG00000038776, ENSMUSG00000060579, ENSMUSG00000029193, ENSMUSG00000052187, ENSMUSG00000027077, ENSMUSG00000047746, ENSMUSG00000030785, ENSMUSG00000092137, ENSMUSG00000030554, ENSMUSG00000025260, ENSMUSG00000068270, ENSMUSG00000057003, ENSMUSG00000024500, ENSMUSG00000078658, ENSMUSG00000033595, ENSMUSG00000037347, ENSMUSG00000061086, ENSMUSG00000067653, ENSMUSG00000020216, ENSMUSG00000055561, ENSMUSG00000048142, ENSMUSG00000091971, ENSMUSG00000032064, ENSMUSG00000066071, ENSMUSG00000031710, ENSMUSG00000002769, ENSMUSG00000050296, ENSMUSG00000026532, ENSMUSG00000051373, ENSMUSG00000028396, ENSMUSG00000006373, ENSMUSG00000025656, ENSMUSG00000019478,
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			ENSMUSG00000036469, ENSMUSG00000035683, ENSMUSG00000031765, ENSMUSG00000028269, ENSMUSG00000040204, ENSMUSG00000024349, ENSMUSG00000036223, ENSMUSG00000031891, ENSMUSG00000043811, ENSMUSG00000026981, ENSMUSG00000044827, ENSMUSG00000045471, ENSMUSG00000072572, ENSMUSG00000046879, ENSMUSG00000012428, ENSMUSG00000024339, ENSMUSG00000023940, ENSMUSG00000026779, ENSMUSG00000026177, ENSMUSG00000032218		ENSMUSG00000031097, ENSMUSG00000048758, ENSMUSG00000026418, ENSMUSG00000049173, ENSMUSG00000028307, ENSMUSG00000039956, ENSMUSG00000032203, ENSMUSG00000032452, ENSMUSG00000090877, ENSMUSG00000039952, ENSMUSG0000002010, ENSMUSG00000063816, ENSMUSG00000032279, ENSMUSG00000039661, ENSMUSG00000010051, ENSMUSG00000017697, ENSMUSG00000028148, ENSMUSG00000061959, ENSMUSG00000038967, ENSMUSG00000032348, ENSMUSG00000064179, ENSMUSG00000052974, ENSMUSG00000027470, ENSMUSG00000041616, ENSMUSG00000091898, ENSMUSG00000059327, ENSMUSG00000023013, ENSMUSG00000017309, ENSMUSG00000032083, ENSMUSG00000075217, ENSMUSG00000032375, ENSMUSG00000042903, ENSMUSG00000055632, ENSMUSG00000024892, ENSMUSG00000052374, ENSMUSG00000031980, ENSMUSG0000006675, ENSMUSG00000025488, ENSMUSG00000033831, ENSMUSG00000025270, ENSMUSG00000031312, ENSMUSG00000008153, ENSMUSG00000032380, ENSMUSG00000032401, ENSMUSG00000031841, ENSMUSG00000033577, ENSMUSG00000024972, ENSMUSG00000031972, ENSMUSG00000061816, ENSMUSG00000026691, ENSMUSG00000032216, ENSMUSG00000028773,
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						ENSMUSG00000029019, ENSMUSG00000020469, ENSMUSG00000057880, ENSMUSG00000031299, ENSMUSG00000026621, ENSMUSG00000000889, ENSMUSG00000079435, ENSMUSG00000021573, ENSMUSG00000027887, ENSMUSG00000023046, ENSMUSG00000090150, ENSMUSG00000031144, ENSMUSG00000025812, ENSMUSG00000041476, ENSMUSG00000066592, ENSMUSG00000026489, ENSMUSG00000012187, ENSMUSG00000010047, ENSMUSG00000033578, ENSMUSG00000062515, ENSMUSG00000070570, ENSMUSG00000020182, ENSMUSG00000001865, ENSMUSG00000020524, ENSMUSG00000039278, ENSMUSG00000031812, ENSMUSG00000056328, ENSMUSG00000025150, ENSMUSG00000019102, ENSMUSG00000031760, ENSMUSG00000032839, ENSMUSG00000066475, ENSMUSG00000007877, ENSMUSG00000040055, ENSMUSG00000022878, ENSMUSG00000032314, ENSMUSG00000008658, ENSMUSG00000013076, ENSMUSG00000025860, ENSMUSG00000027224, ENSMUSG00000032374, ENSMUSG00000023019, ENSMUSG00000066072, ENSMUSG00000030278, ENSMUSG00000032086, ENSMUSG00000030972, ENSMUSG00000032908, ENSMUSG00000025431, ENSMUSG00000056267, ENSMUSG00000079434, ENSMUSG00000001494, ENSMUSG00000052305,
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						ENSMUSG00000022040, ENSMUSG00000025271, ENSMUSG00000046814, ENSMUSG00000025265, ENSMUSG00000032531, ENSMUSG00000032047, ENSMUSG00000027380, ENSMUSG00000025175, ENSMUSG00000025810, ENSMUSG00000032366, ENSMUSG00000055980, ENSMUSG00000040147, ENSMUSG00000032010, ENSMUSG00000018566, ENSMUSG00000021055, ENSMUSG00000064201, ENSMUSG00000041361, ENSMUSG00000031919, ENSMUSG00000032067, ENSMUSG00000060180, ENSMUSG00000022519, ENSMUSG00000073465, ENSMUSG00000025153, ENSMUSG00000024526, ENSMUSG00000030546, ENSMUSG00000055653, ENSMUSG00000031105, ENSMUSG00000032570, ENSMUSG00000024039, ENSMUSG00000001134, ENSMUSG00000045414, ENSMUSG00000000168, ENSMUSG00000007815, ENSMUSG00000025991, ENSMUSG00000038239, ENSMUSG00000061273, ENSMUSG00000043165, ENSMUSG00000052131, ENSMUSG00000000266, ENSMUSG00000034467, ENSMUSG00000025794, ENSMUSG00000035540, ENSMUSG00000030747, ENSMUSG00000075307, ENSMUSG00000041220, ENSMUSG00000031373, ENSMUSG00000035202
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**Supplementary Table S5:** The mutation sites of the Jia6/10 and LN/09 viruses genomes after they infected lung tissues.

	day 3	day 5
<b>Jia6/10-HA</b>		
549: A   G <sup>a</sup>	32   2 <sup>b</sup>	7   8
609: A   C	19   118	28   24
654: C   A	19   114	27   24
748: G   A	43   356	99   108
869: A   G	51   107	59   35
1002: G   A	39   54	78   34
<b>Jia6/10-M</b>		
3: G   C	0   66	0   22
7: A   C	81   56	33   9
<b>Jia6/10-NA</b>		
1171: G   A	0   102	0   30
1186: C   U	0   116	0   29
1414: C   U	0   29	0   12
<b>Jia6/10-NP</b>		
263: U   A	0   138	0   51
461: U   G	0   594	0   185
1076: U   C	84   34	28   17
<b>Jia6/10-NS</b>		
295: C   U	0   199	0   68
304: G   A	191   30	66   10
373: U   C	0   115	0   49
<b>Jia6/10-PA</b>		
4: A   G	0   47	0   11
181: U   A	76   12	14   0
299: G   A	0   26	0   22
340: C   A	7   9	6   4
1288: G   U	0   25	0   13
1606: G   A	0   12	0   6
1611: U   C	8   6	3   3
2104: U   C	113   21	29   12
<b>Jia6/10-PB1</b>		
4: A   G	0   18	0   4
2286: G   A	0   27	0   11
<b>Jia6/10-PB2</b>		
1739: C   U	0   2	0   6
1967: C   U	0   10	0   8
<b>LN/09-M</b>		
162: U   A   C   G <sup>c</sup>	933   29   14   35	379   12   8   14
164: A   G	911   33	370   28

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<b>LN/09-NA</b>		
326: G   A	0   47	0   24
699: C   A	0   42	0   33
912: G   C	96   3	88   7
913: G   U	100   4	88   7
1023: A   U	0   102	0   51
1045: A   G	0   90	0   36
<b>LN/09-NS</b>		
457: C   U	0   231	0   121
633: C   U	0   241	0   112
821: G   A	0   223	0   233
<b>LN/09-PA</b>		
1357: C   U	0   16	0   14
1412: C   U	0   29	0   29
<b>LN/09-PB1</b>		
219: C   G	0   115	0   103
875: G   A	0   44	0   33
1977: G   A	0   65	0   37
<b>LN/09-PB2</b>		
405: C   A	0   7	0   6
1187: A   G	0   18	0   18
1422: U   C	0   12	0   9

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Note: a: nucleotide of the virus gene before | after the infection by Jia6/10 and LN/09 viruses;

b: read number of the nucleotide supported by the transcriptome data;

c: three different nucleotides (A, C, G) mutation appeared after Jia6/10 and LN/09 infection.

**Table S6. Expression level of the genes associated with chemokines and pro- and anti-oxidation stimulation (compared the expression level of the chemokines and pro-and anti-oxidation genes between Jia6/10 and Hm/06)**

ID	Symbol	CK-3d	CK-5d	Jia6-3d	Jia6-5d	LN-3d	LN-5d	HM-3d	HM-5d
ENSMUSG00000015340	Cybb	16.1977	17.6038	61.8652	50.5622	36.6496	15.3475	45.2748	55.9151
ENSMUSG00000020826	Nos2	2.34194	2.53531	5.98394	6.45757	2.54951	3.77291	5.87551	17.0456
ENSMUSG00000024066	Xdh	118.483	104.951	385.017	468.328	233.688	344.728	558.785	529.265
ENSMUSG00000031760	Mt3	5.87108	2.75646	0.55951	1.97873	5.70209	1.89663	4.7961	5.541
ENSMUSG00000018339	Gpx3	684.833	597.253	878.31	953.496	909.898	619.1	1283.29	1744.97
ENSMUSG00000003849	Nqo1	8.74026	5.25201	3.68275	2.10541	7.8377	4.03612	3.09642	1.86138
ENSMUSG00000006818	Sod2	41.4789	33.8039	67.5659	63.1345	48.3926	55.9216	86.0939	93.8314
ENSMUSG00000027187	Cat	140.386	118.048	54.6045	35.9683	91.6875	54.5033	63.1542	30.6649
ENSMUSG00000011382	Dhdh	9.98058	10.5057	5.91993	5.60271	7.6412	5.62787	4.11363	3.43853
ENSMUSG00000020676	Ccl11	5.99633	4.11177	8.99524	6.04383	13.9018	8.89169	20.3788	11.271
ENSMUSG00000035385	Ccl2	2.32551	0.36198	152.271	88.2676	62.5232	66.9286	342.068	429.925
ENSMUSG00000004814	Ccl24	1.45703	1.2144	0.93411	1.23882	1.84252	2.60101	2.72971	2.17253
ENSMUSG00000018930	Ccl4	0.77608	0.37449	64.308	65.3251	21.4411	42.8475	127.06	68.162
ENSMUSG00000035373	Ccl7	1.81182	0.51428	145.184	91.7983	65.9726	88.7176	306.907	359.311
ENSMUSG00000019122	Ccl9	6.39214	4.70786	19.5735	11.3623	24.4391	10.6515	22.6869	29.904
ENSMUSG00000029380	Cxcl1	2.23947	1.72902	75.4909	19.8677	42.1588	23.3262	80.3652	48.9118
ENSMUSG00000034855	Cxcl10	1.29176	0.43362	352.77	262.087	77.0187	288.902	478.328	469.267
ENSMUSG000000061353	Cxcl12	42.5382	43.0076	36.8907	43.2002	45.3037	39.4466	30.1249	78.988
ENSMUSG00000023078	Cxcl13	18.1063	9.82476	96.7491	95.1468	44.5062	47.6794	86.2165	308.786
ENSMUSG00000021508	Cxcl14	22.6183	35.0249	27.8505	48.3434	43.9697	54.2139	73.3442	91.3758
ENSMUSG00000058427	Cxcl2	0.3732	0.09004	12.2271	3.28259	10.1663	2.27019	24.9955	14.266
ENSMUSG00000029371	Cxcl5	1.34114	0.54759	17.8245	6.01886	12.0784	12.4191	31.5362	15.7745