2011	_		0.	_ , .		
GO id GO:0002376	immune system process	Annot. genes	Sign. genes	Expected 25.03	P-value A 3.4e-12	Ndj. P-value 0e+00
GO:0006955	immune response	775	42	13.02	8.2e-12	0e+00
GO:0002250	adaptive immune response	241	21	4.05	6.3e-10	0e+00
GO:0002682	regulation of immune system process	821	38	13.79	8.4e-09	0e+00
O:0042981 O:0043067	regulation of apoptotic process regulation of programmed cell death	1026 1040	43	17.24 17.47	1.4e-08 2.1e-08	0e+00 0e+00
O:0001775	cell activation	620	31	10.42	4.3e-08	0e+00
O:0010941	regulation of cell death	1120	44	18.82	6.3e-08	0e+00
O:0006952	defense response	823	36	13.83	9.3e-08	0e+00
O:0050776 O:0045321	regulation of immune response leukocyte activation	410 543	24	6.89 9.12	9.7e-08 1.1e-07	0e+00 0e+00
O:0045087	innate immune response	395	23	6.64	2.0e-07	0e+00
O:0006915	apoptotic process	1301	47	21.86	2.5e-07	0e+00
O:0002684	positive regulation of immune system pro	531	27	8.92	2.5e-07	0e+00
O:0012501 O:0002443	programmed cell death leukocyte mediated immunity	1323 216	47 16	22.23 3.63	4.1e-07 7.1e-07	0e+00 0e+00
	adaptive immune response based on somati		14	2.79	7.1e-07 7.6e-07	0e+00
O:0006954	inflammatory response	369	21	6.20	1.0e-06	0e+00
O:0001816	cytokine production	434	23	7.29	1.0e-06	0e+00
O:0050896	response to stimulus	4563	110	76.67	1.1e-06	0e+00
O:0043065 O:0009617	positive regulation of apoptotic process response to bacterium	439 283	23 18	7.38 4.75	1.3e-06	0e+00 0e+00
O:0043068	positive regulation of programmed cell d	443	23	7.44	1.5e-06	0e+00
O:0002819	regulation of adaptive immune response	106	11	1.78	1.6e-06	0e+00
O:0001817	regulation of cytokine production	385	21	6.47	2.0e-06	0e+00
O:0006950	response to stress	2248	65	37.77	2.6e-06	0e+00
O:0008219 O:0002703	cell death regulation of leukocyte mediated immunit	1414 135	47 12	23.76	2.8e-06	0e+00 0e+00
O:0002705	death	1418	47	23.82	3.0e-06	0e+00
O:0002366	leukocyte activation involved in immune	163	13	2.74	3.6e-06	0e+00
O:0002263	cell activation involved in immune respo	165	13	2.77	4.1e-06	0e+00
O:0002822 O:0010942	regulation of adaptive immune response b positive regulation of cell death	95 472	10 23	1.60 7.93	4.2e-06 4.3e-06	0e+00 0e+00
O:0010942 O:0016337		508	23	7.93 8.54	4.5e-06	0e+00
O:0050778	positive regulation of immune response	318	18	5.34	6.8e-06	0e+00
O:0002252	immune effector process	485	23	8.15	6.8e-06	0e+00
O:0007159	leukocyte cell–cell adhesion	357	19	6.00	9.1e-06	0e+00
O:0001819 O:0046649	positive regulation of cytokine producti lymphocyte activation	263 467	16 22	4.42 7.85	9.2e-06 1.2e-05	0e+00 0e+00
O:0098609	cell-cell adhesion	545	24	9.16	1.5e-05	0e+00
O:0002449	lymphocyte mediated immunity	160	12	2.69	1.6e-05	0e+00
O:0002285	lymphocyte activation involved in immune	111	10	1.87	1.7e-05	0e+00
O:0098602	single organism cell adhesion	551	24	9.26	1.8e-05	0e+00
O:0002683 O:0032623	negative regulation of immune system pro interleukin–2 production	278 50	16 7	4.67 0.84	1.8e-05 1.8e-05	0e+00 0e+00
O:0034109	homotypic cell-cell adhesion	386	19	6.49	2.7e-05	1e-04
O:0002694	regulation of leukocyte activation	324	17	5.44	3.3e-05	1e-04
O:0002706	regulation of lymphocyte mediated immuni		9	1.65	3.9e-05	1e-04
O:0042110	T cell activation	330	17	5.54	4.1e-05	1e-04
O:0070489 O:0007259	T cell aggregation JAK-STAT cascade	330 99	9	5.54 1.66	4.1e-05 4.2e-05	1e-04 1e-04
O:0097696	STAT cascade	99	9	1.66	4.2e-05	1e-04
O:0071593	lymphocyte aggregation	331	17	5.56	4.3e-05	1e-04
O:0002286	T cell activation involved in immune res	57	7	0.96	4.4e-05	1e-04
O:0097285 O:0002274	cell-type specific apoptotic process	367 126	18	6.17	4.6e-05 5.1e-05	1e-04
O:0002274	myeloid leukocyte activation leukocyte aggregation	337	17	2.12 5.66	5.4e-05	1e-04 1e-04
O:0042267	natural killer cell mediated cytotoxicit	41	6	0.69	5.8e-05	1e-04
O:0002705	positive regulation of leukocyte mediate	81	8	1.36	6.2e-05	1e-04
O:0007165	signal transduction	2897	73	48.67	7.3e-05	1e-04
O:0046425 O:1904892	regulation of STAT cascade	83 83	8	1.39	7.4e-05 7.4e-05	1e-04
O:1904892 O:0002228	regulation of STAT cascade natural killer cell mediated immunity	43	6	1.39 0.72	7.4e-05 7.6e-05	1e-04 1e-04
O:0050865	regulation of cell activation	348	17	5.85	8.0e-05	1e-04
O:0046427	positive regulation of JAK-STAT cascade	44	6	0.74	8.7e-05	1e-04
O:1904894	positive regulation of STAT cascade	44	6	0.74	8.7e-05	1e-04
O:0002237 O:0051716	response to molecule of bacterial origin	190	12 90	3.19	8.7e-05	1e-04
O:0051716 O:0042327	cellular response to stimulus positive regulation of phosphorylation	3830 613	24	64.35 10.30	9.2e-05 9.6e-05	1e-04 1e-04
O:0002697	regulation of immune effector process	288	15	4.84	1.0e-04	1e-04
O:0007155	cell adhesion	826	29	13.88	1.2e-04	2e-04
O:0001934	positive regulation of protein phosphory	583	23	9.80	1.2e-04	2e-04
O:0042088 O:0042269	T-helper 1 type immune response regulation of natural killer cell mediat	30	5	0.50	1.3e-04 1.3e-04	2e-04
O:0042269 O:0048518	regulation of natural killer cell mediat positive regulation of biological proces	3592	85	60.35	1.3e-04 1.3e-04	2e-04 2e-04
O:0040510	biological adhesion	835	29	14.03	1.5e-04	2e-04
O:0002715	regulation of natural killer cell mediat	31	5	0.52	1.5e-04	2e-04
O:0010562		672	25	11.29	1.5e-04	2e-04
O:0045937 O:0001909	positive regulation of phosphate metabol leukocyte mediated cytotoxicity	672 70	25 7	11.29	1.5e-04 1.7e-04	2e-04 2e-04
O:0001909 O:0002707	negative regulation of lymphocyte mediat	32	5	0.54	1.7e-04 1.8e-04	2e-04 2e-04
O:0001910	regulation of leukocyte mediated cytotox	50	6	0.84	1.8e-04	2e-04
O:0044700		3084	75	51.82	1.9e-04	2e-04
O:0019221	cytokine–mediated signaling pathway	206	12	3.46	1.9e-04	2e-04
O:0043403 O:0023052	skeletal muscle tissue regeneration signaling	18 3091	75	0.30 51.93	2.0e-04 2.0e-04	2e-04 2e-04
O:0023052 O:0050777	negative regulation of immune response	3091 96	8	1.61	2.0e-04 2.1e-04	2e-04 2e-04
O:0007166		1389	41	23.34	2.1e-04	2e-04
O:0048584	positive regulation of response to stimu	1207	37	20.28	2.2e-04	2e-04
O:0009605	response to external stimulus	1212	37	20.36	2.3e-04	3e-04
O:0043312	neutrophil degranulation	3168	3 76	0.13	2.5e-04	3e-04
O:0007154 O:0032612	cell communication interleukin–1 production	3168 54	76 6	53.23 0.91	2.6e-04 2.8e-04	3e-04 3e-04
O:0009611	response to wounding	424	18	7.12	2.9e-04	3e-04
O:0048583	regulation of response to stimulus	2241	58	37.65	2.9e-04	3e-04
O:0001906	cell killing	77	7	1.29	3.0e-04	3e-04
0.00000	regulation of leukocyte migration	102	8	1.71	3.1e-04	3e-04
	intropolly law size al. (1010	A =	07.40	2 5 - 01	10 01
O:0002685 O:0035556 O:0050707	intracellular signal transduction regulation of cytokine secretion	1613 104	45 8	27.10 1.75	3.5e-04 3.6e-04	4e-04 4e-04