

term name	term ID	n. of genes	corrected p-value	1	2	3	4	5
Gene Ontology (Biological process)								
BP TE tumor necrosis factor superfamily cytokine production	GO:0071706	106	4.00e-02					5
BP tumor necrosis factor production	GO:0032640	101	3.16e-02					5
BP regulation of tumor necrosis factor superfamily cytokine production	GO:1903555	103	3.48e-02					5
BP regulation of tumor necrosis factor production	GO:0032680	100	3.01e-02					5
BP response to gamma radiation	GO:0010332	50	2.34e-02		4			
BP positive regulation of cytosolic calcium ion concentration	GO:0007204	265	3.52e-02				8	
BP TE apoptotic cell death	GO:0012501	1812	2.06e-02					21
BP apoptotic process	GO:0006915	1791	1.72e-02					21
BP negative regulation of multicellular organism growth	GO:0040015	12	4.06e-02					3
BP mammary gland development	GO:0030879	136	5.67e-04	8				
BP phagocytosis, recognition	GO:0006910	22	5.11e-03					4
BP animal organ morphogenesis	GO:0009887	990	3.02e-02	16				
BP sequestering of metal ion	GO:0051238	127	3.79e-02					6
BP mammary gland epithelial cell proliferation	GO:0033598	28	1.95e-02	4				
BP phagocytosis, engulfment	GO:0006911	38	4.91e-02					4
BP single-organism metabolic process	GO:0044710	4155	4.38e-03					29
BP homeostatic process	GO:0042592	1629	1.54e-02					20
BP TE ion homeostasis	GO:0050801	716	1.64e-02					13
BP inorganic ion homeostasis	GO:0098771	654	6.11e-03					13
BP cation homeostasis	GO:0055080	639	4.73e-03					13
BP divalent inorganic cation homeostasis	GO:0072507	431	4.61e-04					12
BP metal ion homeostasis	GO:0055065	557	1.01e-03					13
BP calcium ion homeostasis	GO:0055074	399	1.39e-02					10
BP cellular calcium homeostasis	GO:0055082	721	1.77e-02					13
BP cellular ion homeostasis	GO:0006873	583	1.70e-03					13
BP cellular cation homeostasis	GO:0030003	568	1.26e-03					13
BP cellular divalent inorganic cation homeostasis	GO:0072503	412	2.83e-04					12
BP cellular metal ion homeostasis	GO:0006875	489	2.27e-04					13
BP cellular calcium ion homeostasis	GO:0006874	387	1.06e-02					10
BP TE tissue development	GO:0009888	1769	5.24e-03					17
BP epithelium development	GO:0060429	1072	9.39e-03					13
BP tissue morphogenesis	GO:0048729	629	1.43e-02					10
BP morphogenesis of an epithelium	GO:0002009	528	2.55e-02					9
BP TE immune system process	GO:0002376	2387	1.35e-24					51 21
BP immune effector process	GO:0002252	713	1.35e-10					10 22
BP leukocyte mediated immunity	GO:0002443	332	2.80e-04					11
BP lymphocyte mediated immunity	GO:0002449	262	3.04e-04					10
BP signaling	GO:0023052	6132	6.03e-07					52
BP single organism signaling	GO:0044700	6120	5.56e-07					52
BP biological regulation	GO:0065007	11372	6.40e-03					65
BP regulation of biological process	GO:0050789	10756	6.19e-03					63
BP positive regulation of biological process	GO:0048518	5194	3.52e-04					43
BP positive regulation of signaling	GO:0023056	1539	2.60e-02					19
BP regulation of immune system process	GO:0002684	1336	5.08e-13					14 31
BP positive regulation of immune system process	GO:0002682	934	4.22e-11					31
BP regulation of cellular process	GO:0050794	10218	5.46e-04					63
BP regulation of cell adhesion	GO:0030155	621	2.10e-02					12
BP response to stimulus	GO:0050896	8162	1.72e-13					68
BP response to chemical	GO:0042221	4059	1.43e-04					38
BP response to organic substance	GO:0010033	2799	1.49e-06					34 23
BP response to cytokine	GO:0034097	793	8.20e-14					26
BP response to interleukin-1	GO:0070555	114	2.04e-02					6
BP response to tumor necrosis factor	GO:0034612	276	4.25e-05					11
BP response to lipid	GO:0033993	870	2.20e-02					12
BP response to biotic stimulus	GO:0009607	836	2.95e-13					26
BP response to external stimulus	GO:0009605	2021	6.24e-09					17 32 18
BP response to external biotic stimulus	GO:0043207	794	1.01e-12					25
BP response to other organism	GO:0051707	793	9.78e-13					23
BP response to bacterium	GO:0009615	305	7.96e-13					13
BP response to virus	GO:0009617	516	5.90e-07					15
BP regulation of response to stimulus	GO:0048583	3592	1.77e-05					37
BP regulation of response to external stimulus	GO:0032101	703	2.29e-03					14 11
BP response to stress	GO:0006950	3579	7.15e-09					23 42 28
BP defense response	GO:0006952	1448	4.16e-19					14 38 22
BP regulation of defense response	GO:0031347	658	6.53e-03					13
BP inflammatory response	GO:0006954	666	1.62e-06					12 15
BP defense response to other organism	GO:0098542	465	1.89e-14					22
BP defense response to bacterium	GO:0042742	239	9.52e-06					11
BP defense response to virus	GO:0051607	227	7.90e-05					10
BP response to wounding	GO:0006911	644	4.95e-02					10
BP immune response	GO:0009655	1530	9.36e-29					15 41
BP humoral immune response	GO:0006959	223	9.92e-03					8
BP adaptive immune response	GO:0002250	390	2.82e-12					19
BP adaptive immune response based on somatic recombination of immune ...	GO:0002460	262	2.48e-05					11
BP innate immune response	GO:0045087	791	7.71e-14					26 12
BP response to interferon-gamma	GO:0034341	155	2.00e-06					10
BP response to type I interferon	GO:0034340	82	2.96e-03					6
BP regulation of immune response	GO:0050776	879	1.06e-07					24
BP cellular response to stimulus	GO:0051716	6818	5.64e-10					55
BP cellular response to chemical stimulus	GO:0070887	2643	7.12e-06	29				32
BP cellular response to organic substance	GO:0071310	2187	3.45e-05					28
BP cellular response to cytokine stimulus	GO:0071345	697	6.16e-13					24
BP cellular response to tumor necrosis factor	GO:0071356	258	2.64e-04					10
BP cellular response to type I interferon	GO:0071357	78	2.20e-03					6
BP cellular response to interferon-gamma	GO:0071346	133	9.88e-06					9
BP positive regulation of response to stimulus	GO:0048584	1994	4.33e-09					32
BP positive regulation of response to external stimulus	GO:0032103	264	2.68e-05					11
BP positive regulation of chemotaxis	GO:0050921	118	2.48e-02					6
BP positive regulation of defense response	GO:0031349	399	1.76e-03					11
BP positive regulation of immune response	GO:0050778	664	3.71e-08					19
BP activation of immune response	GO:0002253	536	9.88e-06					15
BP multicellular organismal process	GO:0032501	6896	1.84e-02					37
BP single-multicellular organism process	GO:0044707	5900	1.00e-03					36
BP regulation of multicellular organismal process	GO:0051239	2631	4.77e-04					29 21
BP regulation of localization	GO:0032879	2442	4.16e-02					20
BP cell communication	GO:0007154	6147	6.66e-07					52
BP signal transduction	GO:0007165	5674	1.17e-07					51
BP cell surface receptor signaling pathway	GO:0007166	2661	3.93e-10					38
BP cytokine-mediated signaling pathway	GO:0019221	542	6.64e-12					21
BP chemokine-mediated signaling pathway	GO:0070098	80	2.56e-03					6
BP type I interferon signaling pathway	GO:0060337	78	2.20e-03					6
BP interferon-gamma-mediated signaling pathway	GO:0060333	80	2.56e-03					6
BP immune response-regulating signaling pathway	GO:0002764	513	4.84e-05					14
BP immune response-regulating cell surface receptor signaling pathway	GO:0002768	380	1.08e-03					14
BP immune response-activating signal transduction	GO:0002757	482	2.20e-05					14
BP immune response-activating cell surface receptor signaling pathway	GO:0002429	350	4.77e-04					11
BP antigen receptor-mediated signaling pathway	GO:0050851	209	2.32e-06					6 11
BP B cell receptor signaling pathway	GO:0050853	53	5.37e-06					7
BP single organism cell adhesion	GO:0098602	760	2.22e-05					17
BP positive regulation of cellular process	GO:0048522	4635	4.86e-04					40
BP positive regulation of cell communication	GO:0010647	1532	2.44e-02					19
BP leukocyte proliferation	GO:0070661	268	3.76e-04					10
BP regulation of leukocyte proliferation	GO:0070663	198	4.64e-02					7
BP mononuclear cell proliferation	GO:0032943	254	2.28e-04					10
BP regulation of mononuclear cell proliferation	GO:0032944	190	3.55e-02					7
BP cell-cell adhesion	GO:0098609	1145	7.58e-03					17
BP single organismal cell-cell adhesion	GO:0016337	708	5.72e-05					16
BP leukocyte cell-cell adhesion	GO:0007159	469	1.62e-06					15
BP leukocyte aggregation	GO:0070486	436	5.80e-07					15
BP lymphocyte aggregation	GO:0071593	429	4.89e-05					13
BP neutrophil aggregation	GO:0070488	2	2.07e-02					2 2
BP regulation of cell-cell adhesion	GO:0022407	371	7.30e-03					10
BP regulation of leukocyte cell-cell adhesion	GO:1903037	298	9.62e-03					9
BP cell activation	GO:0001775	872	8.77e-12					25
BP leukocyte activation	GO:0045321	709	1.08e-11					23
BP myeloid leukocyte activation	GO:0002274	155	9.31e-03					7
BP myeloid dendritic cell activation	GO:0001773	29	1.63e-02					4
BP lymphocyte activation	GO:0046649	606	4.84e-12					22
BP B cell activation	GO:0042113	228	5.81e-06					11
BP lymphocyte proliferation	GO:0046651	252	2.11e-04					10
BP T cell aggregation	GO:0070489	428	4.76e-05					13
BP T cell activation	GO:0042110	428	4.76e-05					13
BP regulation of cell activation	GO:0050865	470	1.56e-07					16
BP regulation of leukocyte activation	GO:0002694	436	5.09e-08					16
BP regulation of lymphocyte activation	GO:0051249	380	6.43e-09					16
BP regulation of lymphocyte proliferation	GO:0050670	189	3.43e-02					7
BP regulation of B cell activation	GO:0050864	112	5.06e-05					6 8
BP regulation of T cell activation	GO:0050863	283	6.30e-03					9
BP positive regulation of cell activation	GO:0050867	291	4.46e-07					13
BP positive regulation of leukocyte activation	GO:0002696	282	3.02e-07					13
BP positive regulation of lymphocyte activation	GO:0051251	258	1.53e-06					12
BP positive regulation of B cell activation	GO:0050871	75	1.74e-03					6
BP leukocyte migration	GO:0050900	370	8.75e-05					12