geneList.ora.zip

WikiPathways

| Type | Name | $\# \mathrm{Hits}$ | Expected score | p-Value |
|----------|--|--------------------|----------------|----------|
| enriched | Toll-like Receptor Signaling Pathway | 17 | 1.460220 | 0.000000 |
| enriched | Overview of interferons-mediated signaling pathway | 11 | 0.510368 | 0.000000 |
| enriched | Regulation of toll-like receptor signaling pathway | 17 | 1.970590 | 0.000000 |
| enriched | Hepatitis B infection | 17 | 2.140710 | 0.000000 |
| enriched | Cytosolic DNA-sensing pathway | 12 | 1.049090 | 0.000000 |
| enriched | PI3K-Akt Signaling Pathway | 19 | 4.820140 | 0.000115 |
| enriched | Allograft Rejection | 8 | 1.261740 | 0.007981 |
| enriched | Type II interferon signaling (IFNG) | 5 | 0.524545 | 0.030793 |
| enriched | Fibrin Complement Receptor 3 Signaling Pathway | 5 | 0.581252 | 0.042144 |

$GO_-_Molecular_Function$

| \mathbf{Type} | Name | $\# \mathbf{Hits}$ | Expected score | p-Value |
|-----------------|---|--------------------|----------------|----------|
| enriched | cytokine activity | 24 | 3.033850 | 0.000000 |
| enriched | cytokine receptor binding | 23 | 3.912820 | 0.000000 |
| enriched | type I interferon receptor binding | 9 | 0.226830 | 0.000000 |
| enriched | receptor ligand activity | 28 | 6.592250 | 0.000000 |
| enriched | signaling receptor activator activity | 28 | 6.663140 | 0.000000 |
| enriched | receptor regulator activity | 28 | 7.244390 | 0.000001 |
| enriched | signaling receptor binding | 48 | 21.506300 | 0.000050 |
| enriched | protein binding | 201 | 165.430000 | 0.001835 |
| enriched | deoxycytidine deaminase activity | 4 | 0.113415 | 0.003383 |
| enriched | cytidine deaminase activity | 4 | 0.170123 | 0.010711 |
| enriched | molecular function regulator | 45 | 24.767000 | 0.013585 |
| enriched | phosphatidylserine 1-acylhydrolase activity | 3 | 0.099238 | 0.045174 |

$GO_-_Biological_Process$

| \mathbf{Type} | Name | $\# \mathrm{Hits}$ | Expected score | p-Value |
|-----------------|--|--------------------|----------------|----------|
| enriched | defense response to virus | 30 | 2.721960 | 0.000000 |
| enriched | defense response | 59 | 15.339400 | 0.000000 |
| enriched | response to external biotic stimulus | 58 | 15.282700 | 0.000000 |
| enriched | response to virus | 31 | 3.955350 | 0.000000 |
| enriched | response to other organism | 51 | 12.390600 | 0.000000 |
| enriched | defense response to other organism | 43 | 9.711160 | 0.000000 |
| enriched | cell surface receptor signaling pathway | 78 | 30.494500 | 0.000000 |
| enriched | immune response | 49 | 13.354600 | 0.000000 |
| enriched | type I interferon signaling pathway | 16 | 0.921497 | 0.000000 |
| enriched | immune system process | 76 | 29.955800 | 0.000000 |
| enriched | regulation of immune system process | 58 | 21.322000 | 0.000000 |
| enriched | natural killer cell activation involved in immune response | 10 | 0.326068 | 0.000000 |

| enriched | response to exogenous dsRNA | 12 | 0.637960 | 0.000000 |
|----------|--|----------|------------|---------------------|
| enriched | cytokine-mediated signaling pathway | 35 | 9.243330 | 0.000000 |
| enriched | response to organic substance | 70 | 30.537000 | 0.000000 |
| enriched | response to dsRNA | 12 | 0.723021 | 0.000000 |
| enriched | humoral immune response | 20 | 3.005500 | 0.000000 |
| enriched | B cell proliferation | 11 | 0.581252 | 0.000000 |
| enriched | positive regulation of peptidyl-serine phosphorylation of STAT | 9 | 0.283538 | 0.000000 |
| emiched | | Э | 0.20000 | 0.000000 |
| enriched | protein response to stimulus | 126 | 76.087300 | 0.000000 |
| enriched | natural killer cell activation | 11 | 0.723021 | 0.000000 |
| enriched | positive regulation of immune system process | 41 | 14.106000 | 0.000001 |
| enriched | T cell activation involved in immune response | 11 | 0.779729 | 0.000001 |
| enriched | regulation of cytokine production | 33 | 9.753700 | 0.000001 |
| enriched | | 13 | 1.332630 | 0.000001 |
| | leukocyte proliferation | | | |
| enriched | regulation of immune response | 40 | 14.020900 | 0.000002 |
| enriched | lymphocyte proliferation | 12 | 1.148330 | 0.000003 |
| enriched | mononuclear cell proliferation | 12 | 1.162500 | 0.000004 |
| enriched | T cell activation | 17 | 2.877910 | 0.000007 |
| enriched | signal transduction | 108 | 66.730600 | 0.000017 |
| enriched | lymphocyte activation | 21 | 4.820140 | 0.000018 |
| enriched | negative regulation of viral genome replication | 10 | 0.850613 | 0.000019 |
| enriched | B cell differentiation | 12 | 1.403510 | 0.000020 |
| enriched | positive regulation of cytokine production | 24 | 6.294540 | 0.000020 |
| enriched | leukocyte differentiation | 19 | 4.026230 | 0.000022 |
| enriched | regulation of receptor signaling pathway via JAK-STAT | 13 | 1.772110 | 0.000027 |
| enriched | lymphocyte differentiation | 16 | 2.863730 | 0.000028 |
| enriched | positive regulation of metabolic process | 86 | 50.441400 | 0.000079 |
| enriched | regulation of viral genome replication | 11 | 1.360980 | 0.000105 |
| enriched | B cell activation | 13 | 2.084000 | 0.000134 |
| enriched | negative regulation of viral process | 11 | 1.403510 | 0.000134 |
| enriched | positive regulation of immune response | 29 | 9.923820 | 0.000141 |
| enriched | adaptive immune response | 16 | 3.317390 | 0.000156 |
| enriched | innate immune response | 22 | 6.365420 | 0.000266 |
| enriched | cell activation | 35 | 14.063500 | 0.000308 |
| enriched | regulation of cell population proliferation | 47 | 22.470400 | 0.000456 |
| enriched | response to organic cyclic compound | 29 | 10.646800 | 0.000493 |
| enriched | regulation of viral life cycle | 12 | 2.027290 | 0.000534 |
| enriched | pyrimidine nucleoside catabolic process | 6 | 0.326068 | 0.000683 |
| enriched | regulation of protein phosphorylation | 43 | 20.060300 | 0.000683 |
| enriched | positive regulation of protein phosphorylation | 34 | 14.035100 | 0.000697 |
| enriched | positive regulation of phosphorylation | 35 | 14.758100 | 0.000761 |
| enriched | regulation of cellular process | 186 | 148.489000 | 0.001130 |
| enriched | positive regulation of nitrogen compound metabolic process | 74 | 44.288600 | 0.001158 |
| enriched | regulation of signal transduction | 73 | 43.494700 | 0.001158 |
| enriched | positive regulation of peptidyl-serine phosphorylation | 10 | 1.488570 | 0.001167 |
| enriched | positive regulation of protein modification process | 38 | 17.139900 | 0.001167 |
| enriched | response to nitrogen compound | 31 | 12.560700 | 0.001107 |
| enriched | regulation of phosphorylation | 45 | 22.130100 | 0.001222 0.001258 |
| enriched | positive regulation of cellular metabolic process | 76 | 46.230800 | 0.001238 0.001314 |
| enriched | | 17 17 | 4.550780 | 0.001314 0.001314 |
| | response to bacterium | | | |
| enriched | cellular response to lipopolysaccharide | 12 | 2.296660 | 0.001374 |
| enriched | cellular process | 228 | 195.131000 | 0.001472 |
| enriched | cellular response to organic substance | 41 | 19.521600 | 0.001522 |
| enriched | regulation of viral process | 13 | 2.849550 | 0.002155 |
| enriched | cellular response to molecule of bacterial origin | 12 | 2.424250 | 0.002158 |
| enriched | leukocyte activation | 30 | 12.404800 | 0.002213 |
| enriched | locomotion | 33 | 14.503000 | 0.002614 |

| enriched | negative regulation of cell population proliferation | 25 | 9.512690 | 0.003225 |
|----------------------|---|----------------|-----------------------|---------------------|
| enriched | regulation of signaling | 78 | 49.477300 | 0.003743 |
| enriched | pyrimidine nucleoside metabolic process | 6 | 0.510368 | 0.004531 |
| enriched | positive regulation of protein metabolic process | 45 | 23.746300 | 0.005673 |
| enriched | response to lipopolysaccharide | 15 | 4.153830 | 0.005673 |
| enriched | positive regulation of cellular protein metabolic process | 43 | 22.300200 | 0.005800 |
| enriched | DNA cytosine deamination | 4 | 0.141769 | 0.005910 |
| enriched | regulation of smooth muscle cell proliferation | 10 | 1.899700 | 0.006310 0.006257 |
| enriched | regulation of peptidyl-serine phosphorylation | 10 | 1.942230 | 0.007366 |
| enriched | regulation of phosphorus metabolic process | 46 | 24.852100 | 0.007500 0.007514 |
| enriched | regulation of T cell differentiation | 10 | 1.956410 | 0.007606 |
| enriched | blood coagulation | 11 | 2.395890 | 0.007932 |
| enriched | regulation of lymphocyte activation | 18 | 5.968470 | 0.007332 |
| enriched | coagulation | 11 | 2.424250 | 0.008557 |
| enriched | regulation of body fluid levels | 17 | 5.443920 | 0.008584 |
| enriched | response to molecule of bacterial origin | 15 | 4.380660 | 0.008534 0.008744 |
| enriched | cytidine deamination | 4 | 0.170123 | 0.000144 |
| enriched | cytidine to uridine editing | 4 | 0.170123 | 0.009167 |
| enriched | hemostasis | 11 | 2.480950 | 0.009107 |
| enriched | regulation of T cell activation | 15 | 4.451540 | 0.009319 |
| enriched | positive regulation of cytokine biosynthetic process | 7 | 0.949851 | 0.003313 |
| enriched | cell motility | 29 | 13.170300 | 0.011040 0.011709 |
| enriched | inflammatory response | 18 | 6.209470 | 0.011709 0.011709 |
| enriched | response to cytokine | 21 | 7.981590 | 0.011709 0.011709 |
| enriched | DNA deamination | 4 | 0.198476 | 0.011709 0.013597 |
| enriched | negative regulation of immune system process | 18 | 6.308710 | 0.013597 0.013597 |
| | | 18 | | |
| enriched | regulation of hemopoiesis | 26 | 6.294540 | 0.013597 |
| enriched | regulation of secretion chemotaxis | 20 15 | 11.299000 | 0.013597 |
| enriched enriched | | 6 | 4.650020 0.680490 | 0.014031 0.014031 |
| enriched | nucleobase-containing small molecule catabolic process regulation of interferon-beta production | 6 | 0.680490 | 0.014031 0.014031 |
| enriched | | 28 | 12.759200 | |
| enriched | positive regulation of cell population proliferation positive regulation of interferon-beta production | 20 5 | 0.425306 | 0.015129 0.015536 |
| | | $\frac{3}{45}$ | | |
| enriched enriched | regulation of cell differentiation | 45 18 | 25.249000 6.478840 | 0.016646 |
| enriched | regulation of protein secretion | 11 | 2.736140 | 0.017442 0.018695 |
| enriched | regulation of leukocyte migration negative regulation of single stranded viral RNA replication via | 4 | 0.226830 | 0.018095 0.019124 |
| emiched | double stranded DNA intermediate | 4 | 0.220630 | 0.019124 |
| enriched | regulation of metabolic process | 121 | 91.497600 | 0.020707 |
| enriched | positive regulation of protein secretion | 13 | 3.799400 | 0.021572 |
| enriched | cellular response to exogenous dsRNA | 4 | 0.241007 | 0.021705 |
| enriched | negative regulation of cytokine production | 13 | 3.827760 | 0.021705 |
| enriched | positive regulation of secretion | 17 | 6.053530 | 0.021705 |
| enriched | regulation of cytokine biosynthetic process | 8 | 1.474400 | 0.021705 |
| enriched | regulation of establishment of protein localization | 24 | 10.448400 | 0.021705 |
| enriched | regulation of locomotion | 29 | 13.808300 | 0.021705 |
| enriched | regulation of protein transport | 23 | 9.782050 | 0.021705 |
| enriched | regulation of lymphocyte differentiation | 10 | 2.381720 | 0.024208 |
| enriched | cell migration | 26 | 11.894400 | 0.024242 |
| enriched | cell population proliferation | 19 | 7.343630 | 0.024242 |
| enriched | B cell receptor signaling pathway | 5 | 0.496191 | 0.025247 |
| enriched | positive regulation of chemokine production | 6 | 0.793905 | 0.025247 |
| enriched | cellular response to cytokine stimulus | 17 | 6.195300 | 0.026358 |
| enriched | regulation of interleukin-6 production | 9 | 1.970590 | 0.026435 |
| enriched | positive regulation of striated muscle cell differentiation | 6 | 0.822259 | 0.028908 |
| enriched | regulation of single stranded viral RNA replication via double | 4 | 0.269361 | 0.028908 |
| | stranded DNA intermediate | _ | | 0.0_000 |
| | | | | |

| enriched | regulation of protein localization | 29 | 14.247800 | 0.031595 |
|----------|--|----|-----------|----------|
| enriched | regulation of sarcomere organization | 3 | 0.099238 | 0.031918 |
| enriched | DNA demethylation | 4 | 0.283538 | 0.033448 |
| enriched | regulation of angiogenesis | 13 | 4.068770 | 0.034268 |
| enriched | positive regulation of peptide secretion | 13 | 4.082940 | 0.035099 |
| enriched | positive regulation of establishment of protein localization | 17 | 6.436300 | 0.037481 |
| enriched | base conversion or substitution editing | 4 | 0.297715 | 0.037594 |
| enriched | cellular response to dsRNA | 4 | 0.297715 | 0.037594 |
| enriched | regulation of cell activation | 19 | 7.683870 | 0.037594 |
| enriched | positive regulation of apoptotic process | 21 | 9.002320 | 0.038551 |
| enriched | positive regulation of protein transport | 16 | 5.897580 | 0.040247 |
| enriched | regulation of muscle cell differentiation | 9 | 2.126530 | 0.040247 |
| enriched | regulation of cellular protein metabolic process | 57 | 36.377900 | 0.040870 |
| enriched | positive regulation of cell death | 22 | 9.739520 | 0.041330 |
| enriched | positive regulation of programmed cell death | 21 | 9.073210 | 0.041330 |
| enriched | demethylation | 6 | 0.921497 | 0.045042 |
| enriched | negative regulation of transposition | 4 | 0.326068 | 0.048107 |

$Reactome_-_Pathways$

| \mathbf{Type} | Name | $\# \mathrm{Hits}$ | Expected score | $\mathbf{p}	extbf{-}\mathbf{Value}$ |
|-----------------|--|--------------------|----------------|-------------------------------------|
| enriched | Interferon alpha/beta signaling | 16 | 0.949851 | 0.000000 |
| enriched | Regulation of IFNA signaling | 10 | 0.368599 | 0.000000 |
| enriched | TRAF6 mediated IRF7 activation | 10 | 0.411130 | 0.000000 |
| enriched | Factors involved in megakaryocyte development and platelet | 11 | 1.545280 | 0.000113 |
| | production | | | |
| enriched | Formation of the Editosome | 3 | 0.127592 | 0.041282 |
| enriched | mRNA Editing: C to U Conversion | 3 | 0.127592 | 0.041282 |

$GO_-_Cellular_Component$

| \mathbf{Type} | Name | $\# \mathrm{Hits}$ | Expected score | $\mathbf{p}	extbf{-}\mathbf{Value}$ |
|-----------------|----------------------------------|--------------------|----------------|-------------------------------------|
| enriched | extracellular region | 51 | 25.078900 | 0.001130 |
| enriched | extracellular space | 41 | 20.131200 | 0.007170 |
| enriched | external side of plasma membrane | 14 | 4.012060 | 0.025875 |

$KEGG_{-}$ -Pathways

| \mathbf{Type} | Name | $\# \mathrm{Hits}$ | Expected score | p-Value |
|-----------------|---|--------------------|----------------|----------|
| enriched | Influenza A | 20 | 2.395890 | 0.000000 |
| enriched | Toll-like receptor signaling pathway | 17 | 1.488570 | 0.000000 |
| enriched | Hepatitis B | 18 | 2.296660 | 0.000000 |
| enriched | Measles | 17 | 1.956410 | 0.000000 |
| enriched | Cytokine-cytokine receptor interaction | 23 | 4.182180 | 0.000000 |
| enriched | RIG-I-like receptor signaling pathway | 13 | 0.992382 | 0.000000 |
| enriched | Autoimmune thyroid disease | 11 | 0.737198 | 0.000000 |
| enriched | Hepatitis C | 16 | 2.197420 | 0.000000 |
| enriched | Jak-STAT signaling pathway | 16 | 2.296660 | 0.000000 |
| enriched | Cytosolic DNA-sensing pathway | 11 | 0.893144 | 0.000000 |
| enriched | Natural killer cell mediated cytotoxicity | 14 | 1.842990 | 0.000001 |
| enriched | Kaposi sarcoma-associated herpesvirus infection | 16 | 2.636900 | 0.000002 |
| enriched | Necroptosis | 15 | 2.310830 | 0.000002 |
| enriched | Epstein-Barr virus infection | 16 | 2.835380 | 0.000004 |

| enriched | Human cytomegalovirus infection | 16 | 3.189800 | 0.000016 |
|----------|---|----|----------|----------|
| enriched | PI3K-Akt signaling pathway | 20 | 5.004440 | 0.000016 |
| enriched | NOD-like receptor signaling pathway | 14 | 2.551840 | 0.000029 |
| enriched | Human immunodeficiency virus 1 infection | 15 | 2.991320 | 0.000032 |
| enriched | Human papillomavirus infection | 17 | 4.664190 | 0.000341 |
| enriched | Transcriptional misregulation in cancer | 12 | 2.622720 | 0.000885 |
| enriched | Herpes simplex virus 1 infection | 20 | 6.946670 | 0.001346 |
| enriched | Tuberculosis | 11 | 2.509310 | 0.002541 |
| enriched | Pathways in cancer | 20 | 7.499570 | 0.003385 |
| enriched | Graft-versus-host disease | 5 | 0.581252 | 0.014473 |
| enriched | Viral protein interaction with cytokine and cytokine receptor | 7 | 1.417690 | 0.024144 |
| enriched | TNF signaling pathway | 7 | 1.587810 | 0.043295 |