Table S1. Overlapped targets of Baimai ointment and osteoarthritis

| Gene name | Protein name |
|-----------|--------------|
| PGR       | Progesterone receptor |
| PTGS1     | Prostaglandin G/H synthase 1 |
| PTGS2     | Prostaglandin G/H synthase 2 |
| ADRB2     | Beta-2 adrenergic receptor |
| PLAU      | Urokinase-type plasminogen activator |
| HTR2A     | 5-hydroxytryptamine 2A receptor |
| NR3C1     | Glucocorticoid receptor |
| ESR1      | Estrogen receptor |
| TLR3      | Toll Like Receptor 3 |
| TLR5      | Toll Like Receptor 5 |
| TLR9      | Toll-like receptor 9 |
| TLR10     | Toll Like Receptor 10 |
| MMP9      | Matrix metalloproteinase-9 |
| MMP14     | Matrix Metallopeptidase 14 |
| TIMP2     | TIMP Metallopeptidase Inhibitor 2 |
| ABCB1     | ATP-dependent translocase ABCB1 |
| PPARG     | Peroxisome Proliferator Activated Receptor Gamma |
| CYP3A4    | Cytochrome P450 3A4 |
| CYP2C9    | Cytochrome P450 Family 2 Subfamily C Member 9 |
| NOS2      | Nitric oxide synthase |
| DPP4      | Dipeptidyl peptidase IV |
| SLC6A4    | Sodium-dependent serotonin transporter |
| OPRM1     | Mu-type opioid receptor |
| CASP9     | Caspase-9 |
| CASP3     | Caspase-3 |
| CASP8     | Caspase-8 |
| PRKCA     | Protein kinase C alpha type |
| TGBF1     | Transforming growth factor beta-1 |
| PON1      | Serum paraoxonase/arylesterase 1 |
| CNR1      | Cannabinoid receptor 1 |
| CNR2      | Cannabinoid receptor 2 |
| DRD2      | D(2) dopamine receptor |
| NOS3      | Nitric oxide synthase |
| NOS1      | Nitric oxide synthase |
| HDAC4     | Histone deacetylase 4 |
| S1PR2     | Sphingosine 1-phosphate receptor 2 |
| FAAH      | Fatty-acid amide hydrolase 1 |
| ALOX5     | Arachidonate 5-lipoxygenase |
| AR        | Androgen receptor |
| MMP3      | Stromelysin-1 |
| F7        | Coagulation factor VII |
| Gene Symbol | Description |
|-------------|-------------|
| EGFR        | Epidermal growth factor receptor |
| VEGFA       | Vascular endothelial growth factor A |
| CCND1       | G1/S-specific cyclin-D1 |
| BCL2L1      | Bcl-2-like protein 1 |
| CDKN1A      | Cyclin-dependent kinase inhibitor 1 |
| EIF6        | Eukaryotic translation initiation factor 6 |
| MMP2        | 72 kDa type IV collagenase |
| MAPK1       | Mitogen-activated protein kinase 1 |
| IL10        | Interleukin-10 |
| EGF         | Pro-epidermal growth factor |
| TNF         | Tumor necrosis factor |
| IL6         | Interleukin-6 |
| TP53        | Cellular tumor antigen p53 |
| NFKBIA      | NF-kappa-B inhibitor alpha |
| POR         | NADPH--cytochrome P450 reductase |
| ODC1        | Ornithine decarboxylase |
| XDH         | Xanthine dehydrogenase/oxidase |
| SOD1        | Superoxide dismutase [Cu-Zn] |
| MMP1        | Interstitial collagenase |
| STAT1       | Signal transducer and activator of transcription 1-alpha/beta |
| CDK1        | Cyclin-dependent kinase 1 |
| ERBB2       | Receptor tyrosine-protein kinase erbB-2 |
| HMOX1       | Heme oxygenase 1 |
| CAV1        | Caveolin-1 |
| GJA1        | Gap junction alpha-1 protein |
| CYP1A1      | Cytochrome P450 1A1 |
| ICAM1       | Intercellular adhesion molecule 1 |
| IL1B        | Interleukin-1 beta |
| CCL2        | C-C motif chemokine 2 |
| SELE        | E-selectin |
| VCAM1       | Vascular cell adhesion protein 1 |
| PTGER3      | Prostaglandin E2 receptor EP3 subtype |
| CXCL8       | Interleukin-8 |
| BIRC5       | Baculoviral IAP repeat-containing protein 5 |
| IL2         | Interleukin-2 |
| CCNB1       | G2/mitotic-specific cyclin-B1 |
| THBD        | Thrombomodulin |
| SERPINE1    | Plasminogen activator inhibitor 1 |
| COL1A1      | Collagen alpha-1(I) chain |
| IFNG        | Interferon gamma |
| IL1A        | Interleukin-1 alpha |
| MPO         | Myeloperoxidase |
| HAS2        | Hyaluronan synthase 2 |
| GSTP1       | Glutathione S-transferase P |
| Gene  | Description                                      |
|-------|--------------------------------------------------|
| PARP1 | Poly [ADP-ribose] polymerase 1                   |
| AHR   | Aryl hydrocarbon receptor                        |
| COL3A1| Collagen alpha-1(III) chain                      |
| CXCL11| C-X-C motif chemokine 11                         |
| CXCL2 | C-X-C motif chemokine 2                         |
| NR1I3 | Nuclear receptor subfamily 1 group I member 3   |
| PPARA | Peroxisome proliferator-activated receptor alpha |
| HSF1  | Heat shock factor protein 1                      |
| CRP   | C-reactive protein                               |
| CXCL10| C-X-C motif chemokine 10                         |
| SPP1  | Osteopontin                                      |
| E2F1  | Transcription factor E2F1                        |
| E2F2  | Transcription factor E2F2                        |
| CTSD  | Cathepsin D                                      |
| IGFBP3| Insulin-like growth factor-binding protein 3     |
| IGF2  | Insulin-like growth factor II                    |
| CD40LG| CD40 ligand                                      |
| IRF1  | Interferon regulatory factor 1                   |
| DIO1  | Type I iodothyronine deiodinase                  |
| GSTM1 | Glutathione S-transferase Mu 1                   |
| CA2   | Carbonic anhydrase II                            |
| FGF10 | Fibroblast growth factor 10                      |
| CAT   | Catalase                                         |
| TEP1  | Telomerase protein component 1                   |
| MMP13 | Collagenase 3                                    |
| CASP7 | Caspase-7                                        |
| NGF   | Beta-nerve growth factor                         |
| PRKCD | Protein kinase C delta type                      |
| FN1   | Fibronectin                                      |
| TYR   | Tyrosinase                                       |
| SMAD2 | Mothers against decapentaplegic homolog 2        |
| CXCL12| Stromal cell-derived factor 1                    |
| CXCR4 | C-X-C chemokine receptor type 4                  |
| PTGES | Prostaglandin E synthase                         |
| KLK3  | Prostate-specific antigen                        |
| APOA1 | Apolipoprotein A-I                               |
| SMAD3 | Mothers against decapentaplegic homolog 3        |
| TGFB3 | Transforming growth factor beta-3                |
| BGLAP | Osteocalcin                                      |
| LEP   | Leptin                                           |
| ITGAM | Integrin alpha-M                                 |
| FGF7  | Keratinocyte growth factor                       |
| TGFB2 | TGF-beta receptor type-2                         |
| ELN   | Elastin                                          |
| Gene Symbol | Gene Name |
|-------------|-----------|
| FBN1        | Fibrillin-1 |
| DUSP1       | Dual specificity protein phosphatase 1 |
| ACP5        | Tartrate-resistant acid phosphatase type 5 |
| ABCA1       | ATP Binding Cassette Subfamily A Member 1 |
| APOE        | Apolipoprotein E |
| APOB        | Apolipoprotein B |
| SCARB1      | Scavenger Receptor Class B Member 1 |
| LPL         | Lipoprotein Lipase |
| NPC1        | NPC Intracellular Cholesterol Transporter 1 |
| HMGCR       | 3-Hydroxy-3-Methylglutaryl-CoA Reductase |
| ARSH        | Arylsulfatase Family Member H |
| APP         | Amyloid Beta Precursor Protein |
| PNLIP       | Pancreatic Lipase |
| ACE         | Angiotensin I Converting Enzyme |
| ADPRH       | ADP-Ribosylarginine Hydrolase |
| EDN1        | Endothelin-1 |
| RPS6KB1     | Ribosomal Protein S6 Kinase B1 |
| ANXA5       | Annexin A5 |
| SERPINA1    | Serpin Family A Member 1 |
| HMGB1       | High Mobility Group Box 1 |
| ENO2        | Enolase 2 |
| GFAP        | Glial Fibrillary Acidic Protein |
| GUSB        | Glucuronidase Beta |
| SIRT1       | NAD-dependent protein deacetylase sirtuin-1 |
| COX5A       | Cytochrome C Oxidase Subunit 5A |
| G6PD        | Glucose-6-Phosphate Dehydrogenase |
| OXA1L       | OXA1L Mitochondrial Inner Membrane Protein |
| CD36        | Platelet glycoprotein 4 |
| GSR         | Glutathione reductase, mitochondrial |
| HTR3A       | 5-hydroxytryptamine receptor 3A |
| OPRD1       | Delta-type opioid receptor |
| ESR2        | Estrogen receptor beta |
| MAPK10      | Mitogen-activated protein kinase 10 |
| CDK2        | Cell division protein kinase 2 |
| CCNA2       | Cyclin-A2 |
| MAPK14      | Mitogen-activated protein kinase 14 |
| GSK3B       | Glycogen synthase kinase-3 beta |
| IL4         | Interleukin-4 |
| STAT3       | Signal transducer and activator of transcription 3 |
| CDK4        | Cell division protein kinase 4 |
### Table S2. GO enrichment of Baimai ointment in the treatment of osteoarthritis

#### A. Molecular function enrichment (11 pathways related)

| Term ID     | Term                                      | Gene ratio | P value    | Count |
|-------------|-------------------------------------------|------------|------------|-------|
| GO:0005126  | cytokine receptor binding                  | 0.088      | 5.30E-18   | 24    |
| GO:0005125  | cytokine activity                         | 0.079      | 8.01E-12   | 17    |
| GO:0045236  | CXCR chemokine receptor binding           | 0.313      | 2.88E-06   | 5     |
| GO:0042379  | chemokine receptor binding                | 0.111      | 4.20E-06   | 7     |
| GO:0032813  | tumor necrosis factor receptor superfamily | 0.130      | 1.18E-05   | 6     |
|             | binding                                   |            |            |       |
| GO:0008009  | chemokine activity                        | 0.125      | 1.45E-05   | 6     |
| GO:0005149  | interleukin-1 receptor binding            | 0.222      | 8.93E-05   | 4     |
| GO:0005164  | tumor necrosis factor receptor binding    | 0.129      | 0.00047    | 4     |
| GO:0048248  | CXCR3 chemokine receptor binding          | 0.400      | 0.00400    | 2     |
| GO:0042056  | chemoattractant activity                  | 0.091      | 0.00650    | 3     |
| GO:0004955  | prostaglandin receptor activity           | 0.200      | 0.00990    | 2     |

#### B. Cellular component enrichment (top 20 of related pathways)

| Term ID     | Term                                      | Gene ratio | P value   | Count |
|-------------|-------------------------------------------|------------|-----------|-------|
| GO:0005615  | extracellular space                       | 0.041      | 1.18E-22  | 46    |
| GO:0044421  | extracellular region part                 | 0.035      | 2.04E-21  | 48    |
| GO:0005576  | extracellular region                      | 0.023      | 1.25E-17  | 57    |
| GO:0045121  | membrane raft                             | 0.063      | 1.03E-11  | 19    |
| GO:0012505  | endomembrane system                       | 0.014      | 3.17E-10  | 62    |
| GO:0044444  | cytoplasmic part                          | 0.010      | 2.55E-09  | 94    |
| GO:0031982  | vesicle                                   | 0.018      | 3.64E-09  | 42    |
| GO:0031410  | cytoplasmic vesicle                       | 0.018      | 1.43E-08  | 40    |
| GO:0031983  | vesicle lumen                             | 0.047      | 2.37E-08  | 16    |
| GO:0034774  | secretory granule lumen                   | 0.046      | 8.85E-08  | 15    |
| GO:0098805  | whole membrane                            | 0.020      | 0.0000016 | 31    |
| GO:0070013  | intracellular organelle lumen             | 0.012      | 0.00000223| 62    |
| GO:0030141  | secretory granule                         | 0.027      | 0.0000024 | 22    |
| GO:0005783  | endoplasmic reticulum                     | 0.018      | 0.00000246| 33    |
| GO:0044433  | cytoplasmic vesicle part                  | 0.020      | 0.00000358| 29    |
| GO:0099503  | secretory vesicle                         | 0.024      | 0.00000475| 23    |
| GO:0005901  | caveola                                   | 0.108      | 0.00000734| 8     |
| GO:0005737  | cytoplasm                                 | 0.009      | 0.00000421| 97    |
| GO:0031012  | extracellular matrix                      | 0.042      | 0.00000475| 12    |
| GO:0044446  | intracellular organelle part              | 0.009      | 0.00000614| 83    |
### C. Biological process enrichment (top 20 of related pathways)

| Term ID   | Term                                  | Gene ratio | P value     | Count |
|-----------|---------------------------------------|------------|-------------|-------|
| GO:0034097 | response to cytokine                  | 0.050      | 5.52E-31    | 52    |
| GO:0002682 | regulation of immune system process   | 0.039      | 2.63E-27    | 54    |
| GO:0071345 | cellular response to cytokine stimulus| 0.048      | 2.00E-26    | 46    |
| GO:0019221 | cytokine-mediated signaling pathway    | 0.061      | 3.70E-26    | 40    |
| GO:0006954 | inflammatory response                 | 0.068      | 9.92E-23    | 33    |
| GO:0002684 | positive regulation of immune system process | 0.045   | 9.76E-22    | 40    |
| GO:0002376 | immune system process                 | 0.024      | 4.35E-20    | 58    |
| GO:0043408 | regulation of MAPK cascade             | 0.048      | 6.41E-19    | 34    |
| GO:0043410 | positive regulation of MAPK cascade    | 0.059      | 7.42E-19    | 30    |
| GO:0030155 | regulation of cell adhesion           | 0.050      | 1.24E-17    | 31    |
| GO:0050727 | regulation of inflammatory response   | 0.071      | 1.05E-16    | 24    |
| GO:0022407 | regulation of cell-cell adhesion      | 0.063      | 5.83E-15    | 23    |
| GO:0050900 | leukocyte migration                   | 0.071      | 1.33E-14    | 21    |
| GO:0001817 | regulation of cytokine production     | 0.044      | 4.69E-14    | 27    |
| GO:1903037 | regulation of leukocyte cell-cell adhesion | 0.072 | 5.09E-14    | 20    |
| GO:0050776 | regulation of immune response         | 0.036      | 7.46E-14    | 31    |
| GO:0002694 | regulation of leukocyte activation    | 0.051      | 8.67E-14    | 24    |
| GO:0045785 | positive regulation of cell adhesion  | 0.059      | 9.28E-14    | 22    |
| GO:0006955 | immune response                       | 0.025      | 5.94E-13    | 39    |
| GO:0002685 | regulation of leukocyte migration     | 0.091      | 1.07E-12    | 16    |
## Table S3. KEGG enrichment of Baimai ointment in the treatment of osteoarthritis

| Term ID | Term                                                                 | Gene ratio | P value          | Count |
|---------|----------------------------------------------------------------------|------------|-----------------|-------|
| hsa05200 | Pathways in cancer                                                   | 0.082      | 5.42E-32        | 42    |
| hsa04933 | AGE-RAGE signaling pathway in diabetic complications                | 0.255      | 2.65E-29        | 25    |
| hsa04668 | TNF signaling pathway                                                | 0.167      | 5.85E-18        | 18    |
| hsa04657 | IL-17 signaling pathway                                              | 0.185      | 1.04E-17        | 17    |
| hsa05161 | Hepatitis B                                                          | 0.134      | 1.04E-17        | 19    |
| hsa05212 | Pancreatic cancer                                                     | 0.216      | 1.04E-17        | 16    |
| hsa05219 | Bladder cancer                                                       | 0.341      | 1.04E-17        | 14    |
| hsa05215 | Prostate cancer                                                      | 0.175      | 1.15E-17        | 17    |
| hsa05418 | Fluid shear stress and atherosclerosis                               | 0.135      | 5.57E-17        | 18    |
| hsa05142 | Chagas disease (American trypanosomiasis)                            | 0.158      | 4.52E-16        | 16    |
| hsa04926 | Relaxin signaling pathway                                            | 0.131      | 7.16E-16        | 17    |
| hsa05206 | MicroRNAs in cancer                                                  | 0.114      | 5.27E-17        | 17    |
| hsa05167 | Kaposi's sarcoma-associated herpesvirus infection                    | 0.098      | 6.76E-15        | 18    |
| hsa05205 | Proteoglycans in cancer                                              | 0.092      | 1.76E-14        | 18    |
| hsa05144 | Malaria                                                              | 0.255      | 2.38E-14        | 12    |
| hsa05134 | Legionellosis                                                         | 0.222      | 9.46E-14        | 12    |
| hsa04060 | Cytokine-cytokine receptor interaction                              | 0.072      | 1.36E-13        | 19    |
| hsa04218 | Cellular senescence                                                  | 0.103      | 1.36E-13        | 16    |
| hsa05225 | Hepatocellular carcinoma                                             | 0.098      | 2.29E-13        | 16    |
| hsa05321 | Inflammatory bowel disease (IBD)                                     | 0.194      | 3.24E-13        | 12    |
| hsa05145 | Toxoplasmosis                                                        | 0.128      | 3.27E-13        | 14    |
| hsa05323 | Rheumatoid arthritis                                                 | 0.155      | 3.27E-13        | 13    |
| hsa04064 | NF-kappa B signaling pathway                                         | 0.140      | 9.73E-13        | 13    |
| hsa05143 | African trypanosomiasis                                              | 0.294      | 1.10E-12        | 10    |
| hsa04066 | HIF-1 signaling pathway                                              | 0.133      | 1.65E-12        | 13    |
| hsa04620 | Toll-like receptor signaling pathway                                 | 0.127      | 2.52E-12        | 13    |
| hsa05164 | Influenza A                                                          | 0.089      | 3.97E-12        | 15    |
| hsa04151 | PI3K-Akt signaling pathway                                           | 0.055      | 9.76E-12        | 19    |
| hsa05226 | Gastric cancer                                                       | 0.095      | 1.03E-11        | 14    |
| hsa05223 | Non-small cell lung cancer                                           | 0.167      | 1.14E-11        | 11    |
| hsa05146 | Amoebiasis                                                           | 0.128      | 1.77E-11        | 12    |
| hsa05140 | Leishmaniasis                                                        | 0.157      | 1.89E-11        | 11    |
| hsa05165 | Human papillomavirus infection                                       | 0.057      | 1.89E-11        | 18    |
| hsa05133 | Pertussis                                                            | 0.149      | 3.08E-11        | 11    |
| hsa05152 | Tuberculosis                                                         | 0.081      | 6.12E-11        | 14    |
| hsa05210 | Colorectal cancer                                                    | 0.129      | 1.14E-10        | 11    |
| hsa05222 | Small cell lung cancer                                               | 0.120      | 2.41E-10        | 11    |
| hsa04115 | p53 signaling pathway                                                | 0.147      | 2.95E-10        | 10    |
| hsa01522 | Endocrine resistance                                                 | 0.116      | 3.14E-10        | 11    |
| ID    | Pathway                                      | Score | Adjusted | P-value | Rank |
|-------|----------------------------------------------|-------|----------|---------|------|
| hsa01524 | Platinum drug resistance                     | 0.143 | 3.62E-10 | 10      |      |
| hsa04068 | FoxO signaling pathway                       | 0.092 | 4.40E-10 | 12      |      |
| hsa05160 | Hepatitis C                                  | 0.092 | 4.66E-10 | 12      |      |
| hsa05166 | HTLV-I infection                             | 0.060 | 5.08E-10 | 15      |      |
| hsa04659 | Th17 cell differentiation                    | 0.108 | 5.61E-10 | 11      |      |
| hsa04210 | Apoptosis                                    | 0.089 | 6.02E-10 | 12      |      |
| hsa05220 | Chronic myeloid leukemia                     | 0.132 | 6.57E-10 | 10      |      |
| hsa05224 | Breast cancer                                | 0.082 | 1.44E-09 | 12      |      |
| hsa04010 | MAPK signaling pathway                       | 0.051 | 3.69E-09 | 15      |      |
| hsa04621 | NOD-like receptor signaling pathway          | 0.072 | 5.08E-09 | 12      |      |
| hsa05214 | Glioma                                       | 0.132 | 5.08E-09 | 9       |      |
| hsa05218 | Melanoma                                     | 0.125 | 7.77E-09 | 9       |      |
| hsa05014 | Amyotrophic lateral sclerosis (ALS)          | 0.160 | 1.08E-08 | 8       |      |
| hsa05168 | Herpes simplex infection                    | 0.066 | 1.18E-08 | 12      |      |
| hsa05132 | Salmonella infection                         | 0.107 | 2.54E-08 | 9       |      |
| hsa05213 | Endometrial cancer                           | 0.138 | 2.95E-08 | 8       |      |
| hsa04110 | Cell cycle                                   | 0.081 | 4.03E-08 | 10      |      |
| hsa05202 | Transcriptional misregulation in cancer      | 0.065 | 6.20E-08 | 11      |      |
| hsa04371 | Apelin signaling pathway                    | 0.075 | 7.82E-08 | 10      |      |
| hsa04915 | Estrogen signaling pathway                   | 0.075 | 7.82E-08 | 10      |      |
| hsa04672 | Intestinal immune network for IgA production | 0.159 | 1.00E-07 | 7       |      |
| hsa04062 | Chemokine signaling pathway                  | 0.061 | 1.13E-07 | 11      |      |
| hsa04932 | Non-alcoholic fatty liver disease (NAFLD)    | 0.067 | 2.01E-07 | 10      |      |
| hsa01521 | EGFR tyrosine kinase inhibitor resistance    | 0.103 | 2.14E-07 | 8       |      |
| hsa04726 | Serotonergic synapse                         | 0.080 | 2.18E-07 | 9       |      |
| hsa04630 | Jak-STAT signaling pathway                   | 0.063 | 3.60E-07 | 10      |      |
| hsa05416 | Viral myocarditis                            | 0.125 | 4.10E-07 | 7       |      |
| hsa04540 | Gap junction                                 | 0.092 | 4.41E-07 | 8       |      |
| hsa04380 | Osteoclast differentiation                   | 0.073 | 4.64E-07 | 9       |      |
| hsa05332 | Graft-versus-host disease                    | 0.167 | 7.00E-07 | 6       |      |
| hsa05162 | Measles                                      | 0.068 | 7.90E-07 | 9       |      |
| hsa04510 | Focal adhesion                               | 0.051 | 2.05E-06 | 10      |      |
| hsa04919 | Thyroid hormone signaling pathway            | 0.070 | 3.01E-06 | 8       |      |
| hsa04020 | Calcium signaling pathway                    | 0.050 | 7.96E-06 | 9       |      |
| hsa04215 | Apoptosis - multiple species                 | 0.161 | 8.12E-06 | 5       |      |
| hsa04370 | VEGF signaling pathway                       | 0.102 | 9.03E-06 | 6       |      |
| hsa05203 | Viral carcinogenesis                         | 0.049 | 9.09E-06 | 9       |      |
| hsa05020 | Prion diseases                               | 0.152 | 1.03E-05 | 5       |      |
| hsa04660 | T cell receptor signaling pathway            | 0.071 | 1.23E-05 | 7       |      |
| hsa05330 | Allograft rejection                          | 0.143 | 1.30E-05 | 5       |      |
| hsa05216 | Thyroid cancer                               | 0.135 | 1.65E-05 | 5       |      |
| hsa04015 | Rap1 signaling pathway                       | 0.044 | 1.91E-05 | 9       |      |
| hsa04217 | Necroptosis                                  | 0.052 | 2.17E-05 | 8       |      |
| hsa04940 | Type I diabetes mellitus                     | 0.125 | 2.24E-05 | 5       |      |
| ID    | Pathway                              | Score  | P-value     | Location |
|-------|--------------------------------------|--------|-------------|----------|
| hsa04670 | Leukocyte transendothelial migration | 0.063  | 2.45E-05    | 7        |
| hsa04071 | Sphingolipid signaling pathway      | 0.060  | 3.01E-05    | 7        |
| hsa05204 | Chemical carcinogenesis              | 0.079  | 3.07E-05    | 6        |
| hsa05010 | Alzheimer's disease                  | 0.048  | 3.58E-05    | 8        |
| hsa04014 | Ras signaling pathway                | 0.039  | 4.29E-05    | 9        |
| hsa04012 | ErbB signaling pathway               | 0.072  | 4.75E-05    | 6        |
| hsa04350 | TGF-beta signaling pathway           | 0.072  | 4.75E-05    | 6        |
| hsa04912 | GnRH signaling pathway               | 0.068  | 6.34E-05    | 6        |
| hsa05169 | Epstein-Barr virus infection         | 0.041  | 9.10E-05    | 8        |
| hsa00590 | Arachidonic acid metabolism          | 0.082  | 0.00013     | 5        |
| hsa04921 | Oxytocin signaling pathway           | 0.047  | 0.00013     | 7        |
| hsa04080 | Neuroactive ligand-receptor interaction | 0.033 | 0.00015     | 9        |
| hsa04934 | Cushing's syndrome                   | 0.046  | 0.00015     | 7        |
| hsa04931 | Insulin resistance                   | 0.056  | 0.00017     | 6        |
| hsa04917 | Prolactin signaling pathway          | 0.072  | 0.00022     | 5        |
| hsa00980 | Metabolism of xenobiotics by cytochrome P450 | 0.071 | 0.00023     | 5        |
| hsa04622 | RIG-I-like receptor signaling pathway | 0.071  | 0.00023     | 5        |
| hsa04520 | Adherens junction                    | 0.070  | 0.00024     | 5        |
| hsa00983 | Drug metabolism - other enzymes      | 0.066  | 0.00032     | 5        |
| hsa04650 | Natural killer cell mediated cytotoxicity | 0.048 | 0.00034     | 6        |
| hsa04658 | Th1 and Th2 cell differentiation     | 0.057  | 0.00060     | 5        |
| hsa00330 | Arginine and proline metabolism      | 0.083  | 0.00064     | 4        |
| hsa04750 | Inflammatory mediator regulation of TRP channels | 0.054 | 0.00072     | 5        |
| hsa00220 | Arginine biosynthesis                | 0.150  | 0.00078     | 3        |
| hsa04923 | Regulation of lipolysis in adipocytes | 0.075  | 0.00088     | 4        |
| hsa04623 | Cytosolic DNA-sensing pathway        | 0.065  | 0.00150     | 4        |
| hsa05230 | Central carbon metabolism in cancer  | 0.062  | 0.00180     | 4        |
| hsa05310 | Asthma                               | 0.107  | 0.00180     | 3        |
| hsa00982 | Drug metabolism - cytochrome P450    | 0.061  | 0.00190     | 4        |
| hsa04114 | Oocyte meiosis                       | 0.043  | 0.00190     | 5        |
| hsa04664 | Fc epsilon RI signaling pathway      | 0.060  | 0.00190     | 4        |
| hsa04722 | Neurotrophin signaling pathway       | 0.043  | 0.00190     | 5        |
| hsa05120 | Epithelial cell signaling in Helicobacter pylori infection | 0.061 | 0.00190     | 4        |
| hsa05211 | Renal cell carcinoma                 | 0.059  | 0.00200     | 4        |
| hsa01523 | Antifolate resistance                | 0.097  | 0.00230     | 3        |
| hsa04611 | Platelet activation                  | 0.041  | 0.00230     | 5        |