**Supplementary Table S8 pathway analysis results**. The top twenty pathways from pathway analysis, using MAGMA, are provided. The top portion of the table provides results from meta-analysis across the 16 raw datasets. The lower portion of the table provides results using all 19 datasets (16 with raw data and 3 using summary statistics).

|  |  |  |  |
| --- | --- | --- | --- |
| **PATHWAY NAME** | **NGENES** | **P** | **SHARED** |
| 16 datasets |  |  |  |
| PID\_TRKR\_PATHWAY | 61 | 1.61E-04 | yes |
| SA\_TRKA\_RECEPTOR | 16 | 2.10E-04 | yes |
| PID\_ERBB1\_DOWNSTREAM\_PATHWAY | 102 | 2.51E-04 | yes |
| REACTOME\_SIGNALING\_BY\_ERBB4 | 86 | 9.24E-04 | yes |
| PID\_ERBB2\_ERBB3\_PATHWAY | 44 | 9.32E-04 | yes |
| PID\_ER\_NONGENOMIC\_PATHWAY | 40 | 9.82E-04 | yes |
| KEGG\_ENDOMETRIAL\_CANCER | 50 | 1.28E-03 | . |
| KEGG\_ALDOSTERONE\_REGULATED\_SODIUM\_REABSORPTION | 40 | 1.69E-03 | yes |
| BIOCARTA\_INSULIN\_PATHWAY | 21 | 1.87E-03 | . |
| BIOCARTA\_IGF1\_PATHWAY | 20 | 1.88E-03 | . |
| PID\_RET\_PATHWAY | 39 | 2.07E-03 | yes |
| PID\_ARF6\_PATHWAY | 35 | 2.55E-03 | yes |
| PID\_SHP2\_PATHWAY | 57 | 2.89E-03 | yes |
| REACTOME\_DOWNSTREAM\_SIGNALING\_OF\_ACTIVATED\_FGFR | 96 | 2.97E-03 | . |
| REACTOME\_SHC1\_EVENTS\_IN\_EGFR\_SIGNALING | 15 | 3.14E-03 | . |
| REACTOME\_VITAMIN\_B5\_PANTOTHENATE\_METABOLISM | 11 | 3.19E-03 | . |
| REACTOME\_SHC1\_EVENTS\_IN\_ERBB4\_SIGNALING | 20 | 3.21E-03 | . |
| REACTOME\_SOS\_MEDIATED\_SIGNALLING | 14 | 3.73E-03 | . |
| KEGG\_PANTOTHENATE\_AND\_COA\_BIOSYNTHESIS | 16 | 3.95E-03 | . |
| REACTOME\_BINDING\_AND\_ENTRY\_OF\_HIV\_VIRION | 4 | 4.39E-03 | . |
| 19 datasets |  |  |  |
| PID\_ERBB1\_DOWNSTREAM\_PATHWAY | 103 | 4.89E-04 | yes |
| PID\_RAS\_PATHWAY | 30 | 5.86E-04 | . |
| SA\_TRKA\_RECEPTOR | 16 | 7.21E-04 | yes |
| PID\_TRKR\_PATHWAY | 61 | 9.82E-04 | yes |
| PID\_RET\_PATHWAY | 39 | 1.36E-03 | yes |
| PID\_ER\_NONGENOMIC\_PATHWAY | 40 | 2.04E-03 | yes |
| KEGG\_ALDOSTERONE\_REGULATED\_SODIUM\_REABSORPTION | 40 | 2.21E-03 | yes |
| PID\_EPHB\_FWD\_PATHWAY | 39 | 2.78E-03 | . |
| REACTOME\_IL1\_SIGNALING | 36 | 2.78E-03 | . |
| KEGG\_SULFUR\_METABOLISM | 11 | 3.04E-03 | . |
| PID\_P75\_NTR\_PATHWAY | 62 | 3.11E-03 | . |
| PID\_WNT\_SIGNALING\_PATHWAY | 27 | 4.43E-03 | . |
| PID\_ERBB2\_ERBB3\_PATHWAY | 44 | 4.77E-03 | yes |
| PID\_SHP2\_PATHWAY | 57 | 5.03E-03 | yes |
| REACTOME\_APOPTOTIC\_CLEAVAGE\_OF\_CELL\_ADHESION\_PROTEINS | 11 | 5.65E-03 | . |
| BIOCARTA\_TRKA\_PATHWAY | 12 | 5.67E-03 | . |
| PID\_BCR\_5PATHWAY | 61 | 5.87E-03 | . |
| BIOCARTA\_EIF4\_PATHWAY | 24 | 6.49E-03 | . |
| PID\_ARF6\_PATHWAY | 35 | 7.61E-03 | yes |
| REACTOME\_SIGNALING\_BY\_ERBB4 | 86 | 7.71E-03 | yes |

P=p-value, NGENES=number of genes in the pathway, SHARED=designation that the pathway is among the top twenty results in both sets of pathway analysis results (i.e. using 16 and 19 datasets).