**Additional Table 4. KEGG Pathways over-represented by microRNA targets**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **KEGG pathway** | **FDR** | **Genes (#)** | **MicroRNAs (#)** | **MicroRNAs** |
| Prion diseases | 0.0001 | 3 | 2 | miR-410, miR-146b |
| Axon guidance | 0.0005 | 26 | 8 | miR-106a-5p, miR-361-5p, miR-3916, miR-410, miR-92a-3p, miR-10a, miR-125a-5p, miR-146b |
| Proteoglycans in cancer | 0.0236 | 30 | 8 | miR-146b-5p, miR-146a, miR-92a-3p, miR-361-5p, miR-106a-5p, miR-10a, miR-410, miR-378a-3p |
| MAPK signaling pathway | 0.0236 | 37 | 11 | miR-410, miR-361-5p, miR-106a-5p, miR-92a-3p, miR-378a-3p, miR-10a, miR-125a-5p, miR-146b, miR-146b-5p, miR-146a, miR-10a-5p |
| mTOR signaling pathway | 0.0277 | 14 | 5 | miR-92a-3p, miR-10a, miR-106a-5p, miR-410, miR-361-5p |
| Neurotrophin signaling  | 0.0277 | 21 | 9 | miR-10a, miR-378a, miR-106a-5p, miR-410, miR-146b, miR-92a-3p, miR-146b-5p, miR-361-5p |
| Ras signaling pathway | 0.0341 | 31 | 11 | miR-378a-3p, miR-361-5p, miR-92a-3p, miR-106a-5p, miR-410, miR-125a-5p, miR-3916, miR-146b-5p, miR-146a, miR-10a, miR-146b |
| Renal cell carcinoma | 0.0341 | 15 | 6 | miR-106a-5p, miR-92a-3p, miR-361-5p, miR-410, miR-146b, miR-378a-3p |
| Glioma | 0.0347 | 11 | 5 | miR-106a-5p, miR-361-5p, miR-92a-3p, miR-10a-3p, miR-10a-5p |
| Long-term potentiation | 0.0347 | 14 | 6 | miR-106a-5p, miR-92a-3p, miR-361-5p, miR-410, miR-3916, miR-10a |
| Hippo signaling pathway | 0.0347 | 18 | 8 | miR-410, miR-92a-3p, miR-106a-5p, miR-378a-3p, miR-10a, miR-361-5p, miR-125a-5p, miR-146b |
| Circadian entrainment | 0.0389 | 17 | 9 | miR-92a-3p, miR-3916, miR-361-5p, miR-106a-5p, miR-10a, miR-410, miR-10a, miR-146a, miR-125a-5p |

Abbreviations: Kyoto Encyclopedia of Genes and Genomes (KEGG)