

Additional File 10: Top Gene Ontology terms using GOrilla gene ontology identification tool

The top 500 target genes for each differentially expressed *miR-15a/16-1* microRNA cluster member in paediatric AML were used for GOrilla gene ontology pathway analysis

| miRNA | GO Term | Description | P-Value | Enrichment | Gene Example |
|----------------------|------------|--|----------|------------|-----------------------------------|
| hsa-miR-16-1* | GO:0006396 | RNA processing | 7.95E-07 | 3.48 | EMG1, RPP30, HNRNPR, CHERP, SRRM1 |
| | GO:0000375 | RNA splicing, via transesterification reactions | 1.98E-05 | 4.57 | SMNDC1, TXNL4A, HNRNPA0, SRSF10 |
| | GO:0008380 | RNA splicing | 5.02E-05 | 3.81 | PPARGC1A, NUDT21, MBNL2 |
| | GO:0006397 | mRNA processing | 5.12E-05 | 3.43 | CELF2, APOBEC2, SLU7 |
| | GO:0000377 | RNA splicing, via transesterification reactions with bulged adenosine as nucleophile | 7.64E-05 | 4.57 | SRRM1, NUDT21, TXNL4A |
| | GO:0000398 | mRNA splicing, via spliceosome | 7.64E-05 | 4.57 | SLU7, HNRNPR, HNRNPA0 |
| | GO:2001244 | positive regulation of intrinsic apoptotic signaling pathway | 4.29E-04 | 63.29 | BCL2L11, DNMT1L |
| | GO:2001242 | regulation of intrinsic apoptotic signaling pathway | 4.29E-04 | 63.29 | BCL2L11, DNMT1L |
| hsa-miR-15a | GO:0072384 | organelle transport along microtubule | 2.50E-04 | 23.52 | DYNC1I1, MAP2K1, KIF1B |
| | GO:0007017 | microtubule-based process | 3.37E-04 | 10.45 | EYA1, DYNC1I1, MAP7 |
| | GO:0035239 | tube morphogenesis | 6.73E-04 | 17.33 | LRP6, EYA1, DLL1 |
| | GO:0010970 | microtubule-based transport | 7.09E-04 | 18.81 | DYNC1I1, MAP2K1, KIF1B |
| | GO:0030705 | cytoskeleton-dependent intracellular transport | 7.09E-04 | 18.81 | DYNC1I1, MAP2K1, KIF1B |
| | GO:0051656 | establishment of organelle localization | 7.09E-04 | 18.81 | EYA1, MAP2K1, KIF1B |
| | GO:0030155 | regulation of cell adhesion | 8.86E-04 | 10.98 | ARL2, SMAD7, MAP2K1, DLL1 |
| hsa-miR-15a* | GO:2001242 | regulation of intrinsic apoptotic signaling pathway | 1.92E-04 | 91.4 | BCL2L11, PPIF |
| | GO:0090200 | positive regulation of release of cytochrome c from mitochondria | 1.92E-04 | 91.4 | BCL2L11, PPIF |
| | GO:0010822 | positive regulation of mitochondrion organization | 4.46E-04 | 60.93 | BCL2L11, PPIF |
| | GO:0090199 | regulation of release of cytochrome c from mitochondria | 4.46E-04 | 60.93 | BCL2L11, PPIF |