**Supplementary Table 1. Top 35 hits from the doxorubicin screen based on a False Discovery Rate corrected *p*-value threshold of 0.01.** The number of sense and antisense gene-trap insertions in both the exons and introns of genes are listed. Genes are color coded as in Figure 1A.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Rank | Gene symbol | Exonic Insertions | | Intronic Insertions | | FDR-Corrected  p-value |
| Sense | Antisense | Sense | Antisense |
| 1 | ***TOP2A*** | 28 | 11 | 115 | 89 | 3.67E-80 |
| 2 | ***SMARCB1*** | 4 | 4 | 55 | 3 | 1.43E-25 |
| 3 | ***ABCB1*** | 8 | 24 | 64 | 515 | 4.15E-19 |
| 4 | ***ARID1A*** | 17 | 10 | 55 | 12 | 2E-17 |
| 5 | ***TADA3*** | 4 | 1 | 32 | 1 | 2.28E-11 |
| 6 | ***SMARCE1*** | 0 | 0 | 55 | 6 | 5.19E-11 |
| 7 | ***SMARCA4*** | 0 | 0 | 82 | 19 | 9.33E-11 |
| 8 | ***SMARCC1*** | 5 | 3 | 84 | 22 | 1.1E-09 |
| 9 | ***NSD1*** | 36 | 8 | 59 | 16 | 2.97E-09 |
| 10 | ***TAF6L*** | 5 | 1 | 26 | 11 | 1.18E-08 |
| 11 | ***CHMP5*** | 0 | 1 | 21 | 0 | 1.37E-08 |
| 12 | ***MALAT1*** | 56 | 62 | 0 | 0 | 5.78E-08 |
| 13 | ***HGS*** | 2 | 2 | 36 | 1 | 1.59E-07 |
| 14 | ***C1orf213*** | 49 | 44 | 0 | 0 | 2.2E-07 |
| 15 | ***FLJ37453*** | 49 | 32 | 12 | 9 | 2.02E-06 |
| 16 | ***UBAP1*** | 1 | 0 | 62 | 20 | 3.79E-06 |
| 17 | ***PARN*** | 6 | 4 | 117 | 62 | 4.94E-06 |
| 18 | ***C1orf115*** | 1 | 3 | 11 | 0 | 5.89E-06 |
| 19 | ***XPO1*** | 32 | 12 | 10 | 7 | 7.11E-06 |
| 20 | ***TADA2B*** | 1 | 0 | 20 | 2 | 2.67E-05 |
| 21 | ***SLTM*** | 5 | 2 | 48 | 18 | 6.13E-05 |
| 22 | ***LOC100216545*** | 27 | 26 | 0 | 0 | 6.73E-05 |
| 23 | ***C11orf30*** | 14 | 10 | 77 | 48 | 0.000188 |
| 24 | ***NAA30*** | 6 | 1 | 8 | 1 | 0.000722 |
| 25 | ***ILF3*** | 3 | 0 | 48 | 10 | 0.001282 |
| 26 | ***HEXIM1*** | 13 | 27 | 0 | 0 | 0.001676 |
| 27 | ***MIP*** | 22 | 22 | 0 | 1 | 0.001676 |
| 28 | ***C15orf34*** | 12 | 13 | 0 | 0 | 0.003635 |
| 29 | ***EIF1AD*** | 1 | 1 | 19 | 2 | 0.004219 |
| 30 | ***SP3*** | 2 | 2 | 30 | 4 | 0.004219 |
| 31 | ***CCDC101*** | 0 | 0 | 18 | 0 | 0.004247 |
| 32 | ***C10orf95*** | 17 | 12 | 1 | 0 | 0.004756 |
| 33 | ***ALDOA*** | 14 | 13 | 40 | 26 | 0.004927 |
| 34 | ***ADNP*** | 1 | 0 | 45 | 9 | 0.005704 |
| 35 | ***OMG*** | 50 | 66 | 11 | 12 | 0.006402 |