Supplementary Table S2. Differentially regulated genes in SUM149PT overexpressing EN1.

| GENES UP-REGULATED | | | |
|---|---|---|---|
| GENE ID | GENE SYMBOL | FOLD CHANGE | GENE NAME |
| 2570 | GABRR2 | 6.2985 | gamma-aminobutyric acid (GABA) receptor, rho 2 |
| 6373 | CXCL11 | 5.3025 | chemokine (C-X-C motif) ligand 11 |
| 11082 | ESM1 | 5.2902 | endothelial cell-specific molecule 1 |
| 1437 | CSF2 | 5.1778 | colony stimulating factor 2 (granulocyte-macrophage) |
| 84674 | CARD6 | 5.1515 | caspase recruitment domain family, member 6 |
| 5473 | PPBP | 4.8810 | pro-platelet basic protein (chemokine (C-X-C motif) ligand 7) |
| 969 | CD69 | 4.8182 | CD69 molecule |
| 140690 | CTCFL | 3.9577 | CCCTC-binding factor (zinc finger protein)-like |
| 5328 | PLAU | 3.9267 | plasminogen activator, urokinase |
| 26053 | AUTS2 | 3.7451 | autism susceptibility candidate 2 |
| 29785 | CYP2S1 | 3.7201 | cytochrome P450, family 2, subfamily S, polypeptide 1 |
| 51561 | IL23A | 3.5431 | interleukin 23, alpha subunit p19 |
| 4907 | NT5E | 3.5105 | 5'-nucleotidase, ecto (CD73) |
| 3170 | FOXA2 | 3.4862 | forkhead box A2 |
| 3885 | KRT34 | 3.4172 | keratin 34 |
| 3037 | HAS2 | 3.3519 | hyaluronan synthase 2 |
| 151254 | ALS2CR11 | 3.3273 | amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candidate 11 |
| 3641 | INSL4 | 3.3211 | insulin-like 4 (placenta) |
| 6447 | SCG5 | 3.2868 | secretogranin V (7B2 protein) |
| 79589 | RNF128 | 3.2577 | ring finger protein 128 |
| 118429 | ANTXR2 | 3.1932 | anthrax toxin receptor 2 |
| 53836 | GPR87 | 3.1492 | G protein-coupled receptor 87 |
| 54627 | KIAA1383 | 3.1449 | KIAA1383 |
| 7850 | IL1R2 | 3.1347 | interleukin 1 receptor, type II |
| 6372 | CXCL6 | 3.0234 | chemokine (C-X-C motif) ligand 6 (granulocyte chemotactic protein 2) |
| 1009 | CDH11 | 2.9554 | cadherin 11, type 2, OB-cadherin (osteoblast) |
| 84419 | C15orf48 | 2.9349 | chromosome 15 open reading frame 48 |
| 5744 | PTHLH | 2.9316 | parathyroid hormone-like hormone |
| 50486 | G0S2 | 2.9201 | G0/G1switch 2 |
| 81029 | WNT5B | 2.8879 | wingless-type MMTV integration site family, member 5B |
| 57214 | KIAA1199 | 2.8845 | KIAA1199 |
| 3589 | IL11 | 2.8745 | interleukin 11 |
| 4674 | NAP1L2 | 2.8603 | nucleosome assembly protein 1-like 2 |
| 55107 | ANO1 | 2.8547 | anoctamin 1, calcium activated chloride channel |
| 149111 | CNIH3 | 2.8448 | cornichon homolog 3 (Drosophila) |
| 114801 | TMEM200A | 2.8076 | transmembrane protein 200A |

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| 1305 | COL13A1 | 2.7352 | collagen, type XIII, alpha 1 |
| 29126 | CD274 | 2.7201 | CD274 molecule |
| 6567 | SLC16A2 | 2.7038 | solute carrier family 16, member 2 (monocarboxylic acid transporter 8) |
| 3576 | IL8 | 2.6882 | interleukin 8 |
| 53831 | GPR84 | 2.6858 | G protein-coupled receptor 84 |
| 4688 | NCF2 | 2.6721 | neutrophil cytosolic factor 2 |
| 139411 | PTCHD1 | 2.6565 | patched domain containing 1 |
| 64648 | SPANXD | 2.6329 | SPANX family, member E; SPANX family, member D |
| 11174 | ADAMTS6 | 2.6027 | ADAM metallopeptidase with thrombospondin type 1 motif, 6 |
| 4153 | MBL2 | 2.5767 | mannose-binding lectin (protein C) 2, soluble (opsonic defect) |
| 151258 | SLC38A11 | 2.5524 | solute carrier family 38, member 11 |
| 6351 | CCL4 | 2.5140 | chemokine (C-C motif) ligand 4 |
| 84189 | SLITRK6 | 2.5053 | SLIT and NTRK-like family, member 6 |
| 8862 | APLN | 2.4967 | apelin |
| 5055 | SERPINB2 | 2.4938 | serpin peptidase inhibitor, clade B (ovalbumin), member 2 |
| 57829 | ZP4 | 2.4880 | zona pellucida glycoprotein 4 |
| 80215 | C21orf96 | 2.4817 | chromosome 21 open reading frame 96 |
| 3157 | HMGCS1 | 2.4794 | 3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble) |
| 203859 | ANO5 | 2.4774 | anoctamin 5 |
| 57458 | TMCC3 | 2.4594 | transmembrane and coiled-coil domain family 3 |
| 51066 | C3orf32 | 2.4509 | chromosome 3 open reading frame 32 |
| 64663 | SPANXC | 2.4504 | SPANX family, member C |
| 3689 | ITGB2 | 2.4116 | integrin, beta 2 (complement component 3 receptor 3 and 4 subunit) |
| 27147 | DENND2A | 2.3977 | DENN/MADD domain containing 2A |
| 558 | AXL | 2.3894 | AXL receptor tyrosine kinase |
| 64232 | MS4A5 | 2.3743 | membrane-spanning 4-domains, subfamily A, member 5 |
| 185 | AGTR1 | 2.3620 | angiotensin II receptor, type 1 |
| 639 | PRDM1 | 2.3620 | PR domain containing 1, with ZNF domain |
| 54796 | BNC2 | 2.3349 | basonuclin 2 |
| 3294 | HSD17B2 | 2.3107 | hydroxysteroid (17-beta) dehydrogenase 2 |
| 5999 | RGS4 | 2.2947 | regulator of G-protein signaling 4 |
| 22822 | PHLDA1 | 2.2815 | pleckstrin homology-like domain, family A, member 1 |
| 256979 | SUNC1 | 2.2799 | Sad1 and UNC84 domain containing 1 |
| 1026 | CDKN1A | 2.2789 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| 9915 | ARNT2 | 2.2579 | aryl-hydrocarbon receptor nuclear translocator 2 |
| 26585 | GREM1 | 2.2527 | gremlin 1, cysteine knot superfamily, homolog (Xenopus laevis) |
| 9173 | IL1RL1 | 2.2475 | interleukin 1 receptor-like 1 |
| 3932 | LCK | 2.2460 | lymphocyte-specific protein tyrosine kinase |
| 64407 | RGS18 | 2.2405 | regulator of G-protein signaling 18 |
| 283316 | CD163L1 | 2.2243 | CD163 molecule-like 1 |
| 1308 | COL17A1 | 2.2243 | collagen, type XVII, alpha 1 |

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| 344558 | SH3RF3 | 2.2232 | SH3 domain containing ring finger 3 |
| 4314 | MMP3 | 2.2199 | matrix metallopeptidase 3 (stromelysin 1, progelatinase) |
| 84364 | ARFGAP2 | 2.2076 | ADP-ribosylation factor GTPase activating protein 2 |
| 7122 | CLDN5 | 2.2038 | claudin 5 |
| 144406 | WDR66 | 2.1987 | WD repeat domain 66 |
| 3936 | LCP1 | 2.1987 | lymphocyte cytosolic protein 1 (L-plastin) |
| 23209 | MLC1 | 2.1873 | megalencephalic leukoencephalopathy with subcortical cysts 1 |
| 220 | ALDH1A3 | 2.1785 | aldehyde dehydrogenase 1 family, member A3 |
| 56131 | PCDHB4 | 2.1772 | protocadherin beta 4 |
| 7422 | VEGFA | 2.1660 | vascular endothelial growth factor A |
| 7462 | LAT2 | 2.1610 | linker for activation of T cells family, member 2 |
| 6751 | SSTR1 | 2.1550 | somatostatin receptor 1 |
| 57580 | PREX1 | 2.1497 | phosphatidylinositol-3,4,5-trisphosphate-dependent Rac exchange factor 1 |
| 7429 | VIL1 | 2.1460 | villin 1 |
| 157310 | PEBP4 | 2.1455 | phosphatidylethanolamine-binding protein 4 |
| 29881 | NPC1L1 | 2.1411 | NPC1 (Niemann-Pick disease, type C1, gene)-like 1 |
| 11009 | IL24 | 2.1356 | interleukin 24 |
| 23743 | BHMT2 | 2.1214 | betaine-homocysteine methyltransferase 2 |
| 272 | AMPD3 | 2.1165 | adenosine monophosphate deaminase (isoform E) |
| 8876 | VNN1 | 2.1116 | vanin 1 |
| 284467 | FAM19A3 | 2.1116 | family with sequence similarity 19 (chemokine (C-C motif)-like), member A3 |
| 256691 | MAMDC2 | 2.1094 | MAM domain containing 2 |
| 1960 | EGR3 | 2.0888 | early growth response 3 |
| 10242 | KCNMB2 | 2.0869 | potassium large conductance calcium-activated channel, subfamily M, beta member 2 |
| 93953 | ACRC | 2.0818 | acidic repeat containing |
| 27071 | DAPP1 | 2.0753 | dual adaptor of phosphotyrosine and 3-phosphoinositides |
| 5053 | PAH | 2.0724 | phenylalanine hydroxylase |
| 256076 | COL29A1 | 2.0722 | collagen, type XXIX, alpha 1 |
| 84953 | MICALCL | 2.0610 | MICAL C-terminal like |
| 2335 | FN1 | 2.0562 | fibronectin 1 |
| 9582 | APOBEC3B | 2.0491 | apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3B |
| 23090 | ZNF423 | 2.0477 | zinc finger protein 423 |
| 164668 | APOBEC3H | 2.0477 | apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3H |
| 6580 | SLC22A1 | 2.0430 | solute carrier family 22 (organic cation transporter), member 1 |
| 56953 | NT5M | 2.0359 | 5',3'-nucleotidase, mitochondrial |
| 80380 | PDCD1LG2 | 2.0350 | programmed cell death 1 ligand 2 |
| 881 | CCIN | 2.0296 | calicin |
| 374918 | IGFL1 | 2.0246 | IGF-like family member 1 |
| 8647 | ABCB11 | 2.0228 | ATP-binding cassette, sub-family B (MDR/TAP), member 11 |

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| 2828 | GPR4 | 2.0162 | G protein-coupled receptor 4 |
| 122786 | FRMD6 | 2.0139 | FERM domain containing 6 |
| 200150 | PLD5 | 2.0104 | phospholipase D family, member 5 |
| 1901 | S1PR1 | 2.0093 | sphingosine-1-phosphate receptor 1 |
| 90576 | ZNF799 | 2.0056 | zinc finger protein 799 |
| 91120 | ZNF682 | 2.0046 | zinc finger protein 682 |
| **GENES DOWN REGULATED** | | | |
| **GENE ID** | **GENE SYMBOL** | **FOLD CHANGE** | **GENE NAME** |
| 51438 | MAGEC2 | 0.1109 | melanoma antigen family C, 2 |
| 4948 | OCA2 | 0.2298 | oculocutaneous albinism II |
| 26223 | FBXL21 | 0.2321 | F-box and leucine-rich repeat protein 21 |
| 143662 | MUC15 | 0.2393 | mucin 15, cell surface associated |
| 5179 | PENK | 0.2576 | proenkephalin |
| 8424 | BBOX1 | 0.2719 | butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-butyrobetaine hydroxylase) 1 |
| 64881 | PCDH20 | 0.2835 | protocadherin 20 |
| 9627 | SNCAIP | 0.2914 | synuclein, alpha interacting protein |
| 1580 | CYP4B1 | 0.2946 | cytochrome P450, family 4, subfamily B, polypeptide 1 |
| 22914 | KLRK1 | 0.2951 | killer cell lectin-like receptor subfamily K, member 1 |

# Genes listed are those with a more than 2-fold change either up- or down-regulated.