**Supplementary tables**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Cell line** | **Supplier** | **Catalogue number** | **Media** | **Serum** |
| 22Rv1 | ATCC | CRL-2505 | RMPI | FBS |
| VCaP | ATCC | CRL-2876 | DMEM | FBS |
| LNCaP | ATCC | CRL-1740 | RMPIR | FBS |
| LNCaP95 | Dr Meeker/Dr Luo\* | NA | RMPIW | CSS |
| PNT2 | Sigma-Aldrich | 95012613 | RPMI | FBS |

**Supplementary Table 1: Cell lines and culture conditions.** ATCC – American type culture collection; FBS – fetal bovine serum; CSS – charcoal stripped serum; \* - LNCaP95 cells were kindly provided by Drs. Alan K Meeker and Jun Luo (Johns Hopkins University, Baltimore, Maryland, USA); R – with phenol red; W – phenolred free.

|  |  |  |
| --- | --- | --- |
| **Gene target** | **Supplier** | **Catalogue ID** |
| Control | Dharmacon (GE healthcare) | D-001810-10 |
| JMJD6 | L-010363 |
| U2AF2 | L-012380 |

**Supplementary Table 2: ON-TARGETplus siRNA pools utilized.**

|  |  |  |
| --- | --- | --- |
| **Protein target** | **Supplier** | **Catalogue ID** |
| AR-FL | DAKO | M3562 |
| AR-V7 | Precision | AG100008 |
| JMJD6 | Santa Cruz | sc-28348 |
| GAPDH | Millipore | MAB374 |
| Tubulin | Millipore | 05-829 |
| U2AF65 | Santa Cruz | sc-53942 |

**Supplementary Table 3: Primary antibodies for western blot analysis.**

|  |  |  |
| --- | --- | --- |
| **Gene target** | **Supplier** | **Assay ID** |
| JMJD6 | ThermoFisher Scientific | Hs00397095\_m1 |
| AR | Hs00171172\_m1 |
| AR-V7 | Hs04260217\_m1 |
| GAPDH | Hs02786624\_g1 |
| B2M | Hs00187842\_m1 |
| CDC73 | Hs00363810\_m1 |

**Supplementary Table 4: TaqMan probes for qRT-PCR analysis.**

|  |  |
| --- | --- |
| **P1F:** | 5’-AGGGATGACTCTGGGAGGTAA-3’ |
| **P1R:** | 5’-CTATGAAAGGGTCAGCCTGTC-3’ |
| **P2F:** | 5’-ACCTCCCCAACTTTACATGCT-3’ |
| **P2R:** | 5’-CAGGGTCTGGTCATTTTGAGA-3’ |
| **P3F:** | 5’-GGTTTAGCAGGTATTTGGGATG-3’ |
| **P3R:** | 5’-TTCTGGGTTGTCTCCTCAGTG-3’ |

**Supplementary Table 5: RNA immunoprecipitation assay primers (AR-V7 specific splice sites).** F = forward primer, R = reverse primer.P1; contains the 5’ splice site for both AR and AR-V7, P2; contains the 3’ splice site for AR-V7, P3; contains the 3’ splice site for AR.



**Supplementary Table 6: *Spliceosome related gene set.***

|  |  |  |  |
| --- | --- | --- | --- |
| ABCC4 | ACSL3 | ADAM7 | APPBP2 |
| ATXN3 | BMPR1B | C1orf116 | CAMKK2 |
| CENPN | CRLS1 | DYNLL2 | EAF2 |
| ELK4 | ELL2 | EVI5 | FADS1 |
| FKBP5 | GNAI3 | GNMT | HERC3 |
| HMGCR | INSIG1 | KLK2 | KLK3 |
| MAF | MAP7 | MED28 | MPHOSPH9 |
| MTERFD2 | NGLY1 | NKX3-1 | NNMT |
| PIAS1 | PMEPA1 | PTGER4 | RRP12 |
| SLC30A7 | SPCS3 | TARP | TMEM50A |
| TMPRSS2 | UBE2J1 | ZBTB10 |  |

**Supplementary Table 7: AR regulated genes included in AR signature.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ABCC4 | CDK6 | HSD17B14 | NKX3-1 | SORD |
| ABHD2 | CENPN | IDI1 | PA2G4 | SPCS3 |
| ACSL3 | DBI | INPP4B | PDLIM5 | SPDEF |
| ACTN1 | DHCR24 | INSIG1 | PGM3 | SRF |
| ADAMTS1 | DNAJB9 | IQGAP2 | PIAS1 | SRP19 |
| ADRM1 | ELK4 | ITGAV | PLPP1 | STEAP4 |
| AKAP12 | ELL2 | KLK2 | PMEPA1 | STK39 |
| AKT1 | ELOVL5 | KLK3 | PTK2B | TMEM50A |
| ALDH1A3 | FADS1 | KRT19 | PTPN21 | TMPRSS2 |
| ANKH | FKBP5 | KRT8 | RAB4A | TNFAIP8 |
| APPBP2 | GNAI3 | LIFR | RPS6KA3 | TPD52 |
| ARID5B | GPD1L | LMAN1 | RRP12 | TSC22D1 |
| AZGP1 | GSR | MAF | SAT1 | UAP1 |
| B2M | GUCY1A1 | MAK | SCD | UBE2I |
| B4GALT1 | H1-0 | MAP7 | SEC24D | UBE2J1 |
| BMPR1B | HERC3 | MERTK | SELENOP | VAPA |
| CAMKK2 | HMGCR | MYL12A | SGK1 | XRCC5 |
| CCND1 | HMGCS1 | NCOA4 | SLC26A2 | XRCC6 |
| CCND3 | HOMER2 | NDRG1 | SLC38A2 | ZBTB10 |
| CDC14B | HPGD | NGLY1 | SMS | ZMIZ1 |

**Supplementary Table 8: Genes included in the androgen response (Hallmark; H) score.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| AKAP12 | CS | HOXB13 | SMPDL3A | WWC1 | ZNF726 |
| ANKRD30B | CTPS2 | IFT57 | SNX1 | ZFX | ZNF761 |
| AR | CYP4F8 | LRRC41 | SPATS2 | ZNF138 | ZNF813 |
| ATF7 | DCAF6 | MALT1 | SRC | ZNF174 | ZNF85 |
| BAZ2A | DOPEY2 | NUDT4 | STEAP1 | ZNF285 |  |
| C4orf36 | ELL2 | PITPNA | STEAP2 | ZNF43 |  |
| CAPN7 | FASN | PPP2R3A | TMBIM6 | ZNF525 |  |
| CBR4 | GALNT7 | PPP3CA | TMSB4Y | ZNF528 |  |
| CCDC115 | GRIN3A | PTER | TTTY15 | ZNF583 |  |
| CDYL2 | GSPT1 | RAB40B | UBE2E3 | ZNF680 |  |
| CROT | HOMER2 | RAB5B | USP54 | ZNF682 |  |

**Supplementary Table 9: Genes included in the AR-V7 signature.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Time (min)** | **% Solvent A** | **% Solvent B** | **Flow (ml/min)** | **Max Pressure Limit (Bar)** |
| 0 | 95 | 5 | 0.2 | 600 |
| 1.0 | 80 | 20 | 0.2 | 600 |
| 9.0 | 45 | 55 | 0.2 | 600 |
| 10.0 | 0 | 100 | 0.2 | 600 |
| 11.0 | 0 | 100 | 0.2 | 600 |
| 12.0 | 95 | 5 | 0.2 | 600 |

**Supplementary Table 10: Gradient conditions for fractionation of LUC7L2 peptides.**



**Supplementary Table 11: RMH/ICR Patient cohort characteristics.** N – number, NR – not recorded, AR – androgen receptor, ^ - systemic therapies include docetaxel, cabazitaxel, abiraterone and enzalutamide.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Gene | Event Type | Event\_ID | Difference | Direction | *p value* | FDR |
| HNRNPDL | SE | ENSG00000152795\_HNRNPDL\_4\_-\_ 83346715\_ 83346820\_ 83345781\_ 83346036\_ 83347189\_ 83347282\_0.357,0.33 | -0.215 | Down | 8.09E-14 | 2.46E-09 |
| CDKL3 | SE | ENSG00000006837\_CDKL3\_5\_-\_133695587\_133695782\_133685939\_133686118\_133706688\_133706732\_0.0,0.143 | 0.928 | Up | 2.19E-11 | 3.33E-07 |
| AFMID | SE | ENSG00000183077\_AFMID\_17\_+\_ 76201173\_ 76201271\_ 76200908\_ 76200981\_ 76201520\_ 76201599\_1.0,1.0 | -0.948 | Down | 1.26E-10 | 1.28E-06 |
| ENDOV | SE | ENSG00000173818\_ENDOV\_17\_+\_ 78395627\_ 78395762\_ 78389449\_ 78389621\_ 78396005\_ 78396045\_1.0,1.0 | -0.915 | Down | 5.78E-10 | 4.40E-06 |
| ASAH2B | SE | ENSG00000204147\_ASAH2B\_10\_+\_ 52504961\_ 52505034\_ 52502674\_ 52502770\_ 52509102\_ 52509162\_1.0,1.0 | -0.304 | Down | 1.21E-09 | 6.32E-06 |
| SEPT9 | SE | ENSG00000184640\_SEPT9\_17\_+\_ 75447448\_ 75447610\_ 75446657\_ 75446868\_ 75478225\_ 75478417\_1.0,1.0 | -0.863 | Down | 1.25E-09 | 6.32E-06 |
| KCNG1 | SE | ENSG00000026559\_KCNG1\_20\_-\_ 49630265\_ 49630381\_ 49628895\_ 49628953\_ 49639406\_ 49639631\_0.0,0.0 | 1 | Up | 1.51E-09 | 6.57E-06 |
| FAM86EP | SE | ENSG00000251669\_FAM86EP\_4\_-\_ 3948870\_ 3949947\_ 3943486\_ 3945099\_ 3954837\_ 3954900\_1.0,1.0 | -0.742 | Down | 2.24E-09 | 8.51E-06 |
| LSM14B | SE | ENSG00000149657\_LSM14B\_20\_+\_ 60701281\_ 60701495\_ 60699672\_ 60699836\_ 60705274\_ 60705352\_0.283,0.164 | 0.776 | Up | 3.94E-09 | 1.20E-05 |
| LIN9 | SE | ENSG00000183814\_LIN9\_1\_-\_226488873\_226488906\_226475364\_226475498\_226496809\_226496955\_0.0,0.0 | 1 | Up | 4.36E-09 | 1.21E-05 |
| TUG1 | SE | ENSG00000253352\_TUG1\_22\_+\_ 31368033\_ 31368158\_ 31367424\_ 31367765\_ 31368840\_ 31369342\_1.0,1.0 | -0.848 | Down | 7.47E-09 | 1.89E-05 |
| KLK4 | SE | ENSG00000167749\_KLK4\_19\_-\_ 51411614\_ 51411751\_ 51410189\_ 51410342\_ 51411834\_ 51412085\_0.784,0.737 | -0.224 | Down | 1.58E-08 | 3.70E-05 |
| SENP6 | SE | ENSG00000112701\_SENP6\_6\_+\_ 76332466\_ 76332574\_ 76331247\_ 76331341\_ 76333615\_ 76333676\_1.0,0.931 | -0.514 | Down | 2.12E-08 | 4.60E-05 |
| C9orf3 | SE | ENSG00000148120\_C9orf3\_9\_+\_ 97844856\_ 97845001\_ 97842975\_ 97843062\_ 97848963\_ 97849441\_1.0,1.0 | -0.682 | Down | 2.37E-08 | 4.81E-05 |
| ASAH2B | SE | ENSG00000204147\_ASAH2B\_10\_+\_ 52504887\_ 52505034\_ 52502674\_ 52502770\_ 52509102\_ 52509162\_1.0,1.0 | -0.505 | Down | 2.54E-08 | 4.82E-05 |
| ASAP1 | SE | ENSG00000153317\_ASAP1\_8\_-\_131373915\_131374017\_131370262\_131370389\_131414130\_131414216\_0.148,0.178 | 0.512 | Up | 2.74E-08 | 4.82E-05 |
| SENP1 | SE | ENSG00000079387\_SENP1\_12\_-\_ 48460709\_ 48460748\_ 48459378\_ 48459463\_ 48465449\_ 48465504\_1.0,1.0 | -0.209 | Down | 2.85E-08 | 4.82E-05 |
| ATP11A | SE | ENSG00000068650\_ATP11A\_13\_+\_113532530\_113532617\_113530089\_113530255\_113536189\_113540427\_1.0,1.0 | -0.692 | Down | 3.42E-08 | 5.48E-05 |
| MTRF1 | SE | ENSG00000120662\_MTRF1\_13\_-\_ 41835826\_ 41835961\_ 41834628\_ 41835051\_ 41836350\_ 41836467\_0.0,0.145 | 0.758 | Up | 3.97E-08 | 6.05E-05 |
| WNK2 | SE | ENSG00000165238\_WNK2\_9\_+\_ 96069058\_ 96069103\_ 96060134\_ 96060349\_ 96070609\_ 96070866\_1.0,1.0 | -0.648 | Down | 5.96E-08 | 8.64E-05 |
| TBC1D1 | SE | ENSG00000065882\_TBC1D1\_4\_+\_ 38054726\_ 38054846\_ 38053519\_ 38053681\_ 38055819\_ 38055959\_0.0,0.0 | 0.818 | Up | 6.54E-08 | 9.05E-05 |
| LEF1 | SE | ENSG00000138795\_LEF1\_4\_-\_108984778\_108984813\_108969752\_108969907\_108985491\_108985540\_1.0,1.0 | -0.635 | Down | 7.51E-08 | 9.94E-05 |
| AP1G1 | SE | ENSG00000166747\_AP1G1\_16\_-\_ 71840588\_ 71840631\_ 71823225\_ 71823385\_ 71841703\_ 71842053\_1.0,1.0 | -0.682 | Down | 1.09E-07 | 0.000138421 |
| SLC30A6 | SE | ENSG00000152683\_SLC30A6\_2\_+\_ 32431954\_ 32432002\_ 32422775\_ 32422895\_ 32445281\_ 32446809\_1.0,1.0 | -0.681 | Down | 1.28E-07 | 0.000155893 |
| ZNF195 | SE | ENSG00000005801\_ZNF195\_11\_-\_ 3382972\_ 3383119\_ 3381949\_ 3382018\_ 3392204\_ 3392377\_1.0,1.0 | -0.559 | Down | 1.54E-07 | 0.000173074 |
| IRF3 | SE | ENSG00000126456\_IRF3\_19\_-\_ 50167699\_ 50167930\_ 50166599\_ 50166771\_ 50168887\_ 50168962\_0.0,0.0 | 0.715 | Up | 1.59E-07 | 0.000173074 |
| OBSCN | SE | ENSG00000154358\_OBSCN\_1\_+\_228480223\_228480487\_228479598\_228479862\_228481053\_228481317\_1.0,1.0 | -0.683 | Down | 1.97E-07 | 0.000207021 |
| RP11-33B1.1 | SE | ENSG00000245958\_RP11-33B1.1\_4\_+\_120418965\_120419058\_120415640\_120415678\_120433505\_120433619\_1.0,1.0 | -0.614 | Down | 2.35E-07 | 0.000238111 |
| TM2D1 | SE | ENSG00000162604\_TM2D1\_1\_-\_ 62189959\_ 62190097\_ 62175000\_ 62175109\_ 62190573\_ 62190785\_0.601,1.0 | -0.8 | Down | 2.66E-07 | 0.000238234 |
| EGF | SE | ENSG00000138798\_EGF\_4\_+\_110914402\_110914525\_110909739\_110909865\_110915888\_110916036\_1.0,1.0 | -0.434 | Down | 2.63E-07 | 0.000238234 |
| STRADA | SE | ENSG00000266173\_STRADA\_17\_-\_ 61784606\_ 61784778\_ 61783994\_ 61784099\_ 61787850\_ 61787974\_1.0,1.0 | -0.61 | Down | 2.48E-07 | 0.000238234 |
| IQCH | SE | ENSG00000103599\_IQCH\_15\_+\_ 67687628\_ 67687901\_ 67681168\_ 67681344\_ 67692451\_ 67692643\_1.0,1.0 | -0.832 | Down | 2.94E-07 | 0.000255863 |
| ARHGEF39 | SE | ENSG00000137135\_ARHGEF39\_9\_-\_ 35662942\_ 35663071\_ 35662508\_ 35662738\_ 35663318\_ 35663389\_0.509,0.206 | 0.643 | Up | 3.14E-07 | 0.000258403 |
| LRRC23 | SE | ENSG00000010626\_LRRC23\_12\_+\_ 7015008\_ 7015118\_ 7014748\_ 7014923\_ 7015572\_ 7015826\_1.0,0.936 | -0.432 | Down | 3.12E-07 | 0.000258403 |
| BTN2A1 | SE | ENSG00000112763\_BTN2A1\_6\_+\_ 26463024\_ 26463125\_ 26459708\_ 26460056\_ 26463471\_ 26463753\_0.0,0.0 | 0.436 | Up | 3.42E-07 | 0.000274263 |
| ZNF606 | SE | ENSG00000166704\_ZNF606\_19\_-\_ 58511175\_ 58511264\_ 58499962\_ 58500089\_ 58512050\_ 58512107\_1.0,1.0 | -0.536 | Down | 3.77E-07 | 0.000294516 |
| LRRC23 | SE | ENSG00000010626\_LRRC23\_12\_+\_ 7019053\_ 7019190\_ 7016478\_ 7016609\_ 7023054\_ 7023392\_1.0,1.0 | -0.597 | Down | 4.31E-07 | 0.000328118 |
| OSBPL5 | SE | ENSG00000021762\_OSBPL5\_11\_-\_ 3141650\_ 3141854\_ 3140776\_ 3140861\_ 3143226\_ 3143328\_0.948,1.0 | -0.235 | Down | 4.52E-07 | 0.000335596 |
| EXO5 | SE | ENSG00000164002\_EXO5\_1\_+\_ 40975122\_ 40975297\_ 40974461\_ 40974580\_ 40975404\_ 40975462\_0.228,0.181 | 0.713 | Up | 4.70E-07 | 0.000340442 |
| SLC9A8 | SE | ENSG00000197818\_SLC9A8\_20\_+\_ 48467346\_ 48467381\_ 48466115\_ 48466217\_ 48471974\_ 48472118\_0.545,0.4 | 0.477 | Up | 4.81E-07 | 0.000340442 |
| RERE | SE | ENSG00000142599\_RERE\_1\_-\_ 8483226\_ 8483307\_ 8482786\_ 8482867\_ 8483620\_ 8483726\_1.0,1.0 | -0.638 | Down | 5.83E-07 | 0.000369842 |
| KANSL2 | SE | ENSG00000139620\_KANSL2\_12\_-\_ 49072818\_ 49073021\_ 49065581\_ 49065745\_ 49073437\_ 49073616\_1.0,0.946 | -0.272 | Down | 5.81E-07 | 0.000369842 |
| RSRC2 | SE | ENSG00000111011\_RSRC2\_12\_-\_123005050\_123005128\_123003386\_123003598\_123005931\_123005975\_1.0,1.0 | -0.323 | Down | 5.73E-07 | 0.000369842 |
| NEK7 | SE | ENSG00000151414\_NEK7\_1\_+\_198233254\_198233365\_198222169\_198222310\_198288541\_198291550\_0.0,0.357 | 0.822 | Up | 5.66E-07 | 0.000369842 |
| EGF | SE | ENSG00000138798\_EGF\_4\_+\_110929307\_110929386\_110925660\_110925778\_110932357\_110932657\_1.0,1.0 | -0.581 | Down | 7.03E-07 | 0.000436897 |
| L3MBTL3 | SE | ENSG00000198945\_L3MBTL3\_6\_+\_130370900\_130370975\_130370426\_130370538\_130372393\_130372553\_1.0,1.0 | -0.621 | Down | 7.18E-07 | 0.000437363 |
| RP11-345J4.5 | SE | ENSG00000261740\_RP11-345J4.5\_16\_-\_ 29461432\_ 29461597\_ 29458122\_ 29458347\_ 29463429\_ 29465434\_1.0,1.0 | -0.907 | Down | 7.77E-07 | 0.000463441 |
| SGSM2 | SE | ENSG00000141258\_SGSM2\_17\_+\_ 2270564\_ 2270699\_ 2268508\_ 2268635\_ 2274555\_ 2274709\_0.0,0.0 | 0.498 | Up | 8.36E-07 | 0.000489407 |
| ARHGAP44 | SE | ENSG00000006740\_ARHGAP44\_17\_+\_ 12832245\_ 12832363\_ 12823071\_ 12823148\_ 12844372\_ 12844441\_1.0,1.0 | -0.299 | Down | 8.61E-07 | 0.000494221 |
| PPM1M | SE | ENSG00000164088\_PPM1M\_3\_+\_ 52280989\_ 52281244\_ 52280710\_ 52280828\_ 52281697\_ 52281810\_1.0,1.0 | -0.55 | Down | 9.21E-07 | 0.000518866 |
| TM9SF4 | SE | ENSG00000101337\_TM9SF4\_20\_+\_ 30724679\_ 30724800\_ 30723876\_ 30723976\_ 30729343\_ 30729468\_0.0,0.0 | 0.674 | Up | 9.69E-07 | 0.000536238 |
| PRKD2 | SE | ENSG00000105287\_PRKD2\_19\_-\_ 47217119\_ 47217258\_ 47214163\_ 47214295\_ 47219387\_ 47219853\_1.0,1.0 | -0.23 | Down | 1.01E-06 | 0.000550578 |
| SPRED2 | SE | ENSG00000198369\_SPRED2\_2\_-\_ 65561248\_ 65561399\_ 65559337\_ 65559434\_ 65561738\_ 65561907\_1.0,1.0 | -0.838 | Down | 1.03E-06 | 0.000551286 |
| GAB1 | SE | ENSG00000109458\_GAB1\_4\_+\_144355240\_144355321\_144354643\_144354869\_144359151\_144359194\_1.0,1.0 | -0.504 | Down | 1.09E-06 | 0.000573637 |
| SLC4A7 | SE | ENSG00000033867\_SLC4A7\_3\_-\_ 27472788\_ 27473160\_ 27465527\_ 27465643\_ 27475445\_ 27475595\_1.0,1.0 | -0.666 | Down | 1.15E-06 | 0.000593085 |
| ELL3 | SE | ENSG00000128886\_ELL3\_15\_-\_ 44068236\_ 44068349\_ 44067919\_ 44068121\_ 44068706\_ 44068770\_1.0,1.0 | -0.231 | Down | 1.22E-06 | 0.00059879 |
| LEF1 | SE | ENSG00000138795\_LEF1\_4\_-\_108984778\_108984819\_108968747\_108969907\_108985491\_108985540\_1.0,1.0 | -0.367 | Down | 1.19E-06 | 0.00059879 |
| DNASE1L1 | SE | ENSG00000013563\_DNASE1L1\_X\_-\_153637447\_153637532\_153633774\_153633996\_153640227\_153640449\_1.0,1.0 | -0.408 | Down | 1.21E-06 | 0.00059879 |
| PRR3 | SE | ENSG00000204576\_PRR3\_6\_+\_ 30529104\_ 30529285\_ 30525090\_ 30525227\_ 30529610\_ 30529901\_1.0,1.0 | -0.553 | Down | 1.30E-06 | 0.000626831 |
| HMGN1 | SE | ENSG00000205581\_HMGN1\_21\_-\_ 40719304\_ 40719409\_ 40717755\_ 40717884\_ 40720217\_ 40720265\_1.0,1.0 | -0.453 | Down | 1.69E-06 | 0.000802598 |
| NPHP3 | SE | ENSG00000113971\_NPHP3\_3\_-\_132415574\_132415657\_132413670\_132413809\_132416103\_132416206\_1.0,1.0 | -0.393 | Down | 1.73E-06 | 0.000810121 |
| CEP57L1 | SE | ENSG00000183137\_CEP57L1\_6\_+\_109450506\_109450695\_109416764\_109416778\_109466421\_109466584\_0.0,0.0 | 0.687 | Up | 1.92E-06 | 0.000886673 |
| TXN | SE | ENSG00000136810\_TXN\_9\_-\_113013099\_113013159\_113007057\_113007123\_113018691\_113018920\_1.0,1.0 | -0.292 | Down | 1.98E-06 | 0.000899626 |
| PHYKPL | SE | ENSG00000175309\_PHYKPL\_5\_-\_177639973\_177640104\_177638890\_177638971\_177641796\_177641886\_1.0,1.0 | -0.494 | Down | 2.07E-06 | 0.00092518 |
| PCNT | SE | ENSG00000160299\_PCNT\_21\_+\_ 47864606\_ 47864734\_ 47862409\_ 47862486\_ 47865196\_ 47865682\_1.0,1.0 | -0.436 | Down | 2.26E-06 | 0.000935172 |
| ANKMY1 | SE | ENSG00000144504\_ANKMY1\_2\_-\_241468453\_241468926\_241465220\_241465266\_241492330\_241492474\_1.0,1.0 | -0.419 | Down | 2.15E-06 | 0.000935172 |
| DET1 | SE | ENSG00000140543\_DET1\_15\_-\_ 89079542\_ 89079612\_ 89073853\_ 89074946\_ 89089770\_ 89089884\_0.399,0.857 | -0.59 | Down | 2.20E-06 | 0.000935172 |
| NAPB | SE | ENSG00000125814\_NAPB\_20\_-\_ 23377708\_ 23377825\_ 23375775\_ 23375822\_ 23383629\_ 23383709\_1.0,1.0 | -0.526 | Down | 2.27E-06 | 0.000935172 |
| C11orf65 | SE | ENSG00000166323\_C11orf65\_11\_-\_108302472\_108302565\_108277822\_108277876\_108332205\_108332296\_1.0,1.0 | -0.884 | Down | 2.38E-06 | 0.000966526 |
| FAM47E-STBD1 | SE | ENSG00000272414\_FAM47E-STBD1\_4\_+\_ 77177330\_ 77177676\_ 77172873\_ 77172973\_ 77184856\_ 77184996\_1.0,1.0 | -0.536 | Down | 2.56E-06 | 0.001025585 |
| CLHC1 | SE | ENSG00000162994\_CLHC1\_2\_-\_ 55436539\_ 55436652\_ 55433405\_ 55433512\_ 55436765\_ 55436967\_1.0,1.0 | -0.488 | Down | 2.63E-06 | 0.001036438 |
| WDR31 | SE | ENSG00000148225\_WDR31\_9\_-\_116093263\_116093396\_116091160\_116091235\_116094186\_116094330\_1.0,1.0 | -0.448 | Down | 2.66E-06 | 0.001036438 |
| ZNF562 | SE | ENSG00000171466\_ZNF562\_19\_-\_ 9771395\_ 9771550\_ 9762954\_ 9764557\_ 9785690\_ 9785720\_1.0,1.0 | -0.29 | Down | 2.70E-06 | 0.001039174 |
| XIAP | SE | ENSG00000101966\_XIAP\_X\_+\_122994016\_122994143\_122993676\_122993755\_123019480\_123019561\_1.0,1.0 | -0.475 | Down | 2.88E-06 | 0.001080496 |
| PACRGL | SE | ENSG00000163138\_PACRGL\_4\_+\_ 20711305\_ 20711396\_ 20709425\_ 20709493\_ 20714410\_ 20714545\_1.0,1.0 | -0.254 | Down | 2.87E-06 | 0.001080496 |
| ZNF749 | SE | ENSG00000186230\_ZNF749\_19\_+\_ 57953252\_ 57953379\_ 57946696\_ 57946961\_ 57954658\_ 57956853\_1.0,1.0 | -0.506 | Down | 2.93E-06 | 0.001086609 |
| CCDC15 | SE | ENSG00000149548\_CCDC15\_11\_+\_124863064\_124863139\_124857022\_124858030\_124873762\_124873855\_1.0,1.0 | -0.407 | Down | 3.45E-06 | 0.001246777 |
| MLPH | SE | ENSG00000115648\_MLPH\_2\_+\_238449444\_238449600\_238448990\_238449176\_238451209\_238451302\_1.0,1.0 | -0.45 | Down | 3.42E-06 | 0.001246777 |
| FAM173A | SE | ENSG00000103254\_FAM173A\_16\_+\_ 772083\_ 772134\_ 771800\_ 771941\_ 772308\_ 772601\_1.0,1.0 | -0.27 | Down | 3.55E-06 | 0.001255201 |
| TM2D3 | SE | ENSG00000184277\_TM2D3\_15\_-\_102191898\_102191976\_102190206\_102190364\_102192473\_102192587\_0.505,0.425 | 0.215 | Up | 3.62E-06 | 0.001261919 |
| NLE1 | SE | ENSG00000073536\_NLE1\_17\_-\_ 33461961\_ 33462078\_ 33460357\_ 33460517\_ 33462267\_ 33462470\_0.318,0.194 | -0.245 | Down | 3.91E-06 | 0.001314512 |
| IRAK4 | SE | ENSG00000198001\_IRAK4\_12\_+\_ 44154727\_ 44154775\_ 44152752\_ 44152819\_ 44161905\_ 44162075\_1.0,1.0 | -0.469 | Down | 3.90E-06 | 0.001314512 |
| CDK20 | SE | ENSG00000156345\_CDK20\_9\_-\_ 90585482\_ 90585545\_ 90584710\_ 90584834\_ 90585690\_ 90585812\_1.0,1.0 | -0.429 | Down | 3.93E-06 | 0.001314512 |
| PGC | SE | ENSG00000096088\_PGC\_6\_-\_ 41712134\_ 41712252\_ 41710027\_ 41710227\_ 41712395\_ 41712546\_1.0,1.0 | -0.359 | Down | 4.11E-06 | 0.001342644 |
| POLK | SE | ENSG00000122008\_POLK\_5\_+\_ 74889790\_ 74889874\_ 74886168\_ 74886265\_ 74892046\_ 74893003\_1.0,1.0 | -0.344 | Down | 4.13E-06 | 0.001342644 |
| FBXL6 | SE | ENSG00000182325\_FBXL6\_8\_-\_145581116\_145581162\_145580649\_145580781\_145581287\_145581446\_1.0,1.0 | -0.397 | Down | 4.15E-06 | 0.001342644 |
| IKBKG | SE | ENSG00000073009\_IKBKG\_X\_+\_153770496\_153770667\_153769469\_153769606\_153780202\_153780404\_1.0,1.0 | -0.545 | Down | 4.22E-06 | 0.001351502 |
| LIMCH1 | SE | ENSG00000064042\_LIMCH1\_4\_+\_ 41628724\_ 41629027\_ 41621204\_ 41621457\_ 41631508\_ 41631751\_1.0,1.0 | -0.482 | Down | 4.40E-06 | 0.001380771 |
| CMC2 | SE | ENSG00000103121\_CMC2\_16\_-\_ 81034852\_ 81034939\_ 81009899\_ 81010076\_ 81040338\_ 81040463\_0.381,0.381 | 0.619 | Up | 4.47E-06 | 0.001388397 |
| PHF3 | SE | ENSG00000118482\_PHF3\_6\_+\_ 64389900\_ 64390062\_ 64356431\_ 64356700\_ 64401626\_ 64401933\_0.447,0.852 | 0.351 | Up | 4.62E-06 | 0.001404799 |
| SNAP47 | SE | ENSG00000143740\_SNAP47\_1\_+\_227919285\_227919448\_227916239\_227916487\_227946695\_227947186\_1.0,1.0 | -0.383 | Down | 4.58E-06 | 0.001404799 |
| SLC2A8 | SE | ENSG00000136856\_SLC2A8\_9\_+\_130164835\_130165032\_130162185\_130162285\_130166016\_130166070\_1.0,0.897 | -0.572 | Down | 4.80E-06 | 0.001415309 |
| MAPK7 | SE | ENSG00000166484\_MAPK7\_17\_+\_ 19283796\_ 19283814\_ 19283094\_ 19283260\_ 19283920\_ 19283936\_0.0,0.0 | 0.206 | Up | 4.84E-06 | 0.001415309 |
| CHCHD4 | SE | ENSG00000163528\_CHCHD4\_3\_-\_ 14163416\_ 14163586\_ 14160644\_ 14160813\_ 14166154\_ 14166370\_1.0,1.0 | -0.443 | Down | 4.81E-06 | 0.001415309 |
| PHF3 | SE | ENSG00000118482\_PHF3\_6\_+\_ 64394029\_ 64395812\_ 64356523\_ 64356700\_ 64401626\_ 64401933\_0.591,0.931 | 0.239 | Up | 5.32E-06 | 0.001543276 |
| RBCK1 | SE | ENSG00000125826\_RBCK1\_20\_+\_ 401514\_ 401650\_ 400201\_ 400375\_ 402770\_ 402882\_1.0,1.0 | -0.642 | Down | 5.50E-06 | 0.001570813 |
| TAPBP | SE | ENSG00000231925\_TAPBP\_6\_-\_ 33271904\_ 33271994\_ 33267470\_ 33269548\_ 33272073\_ 33272415\_0.684,0.655 | 0.284 | Up | 5.52E-06 | 0.001570813 |
| MYO6 | SE | ENSG00000196586\_MYO6\_6\_+\_ 76604947\_ 76604977\_ 76602246\_ 76602407\_ 76608089\_ 76608128\_1.0,1.0 | -0.341 | Down | 5.60E-06 | 0.001579339 |
| EXTL2 | SE | ENSG00000162694\_EXTL2\_1\_-\_101343949\_101344003\_101343074\_101343459\_101354308\_101354420\_0.0,0.0 | 0.365 | Up | 5.87E-06 | 0.001592701 |
| PEX11A | SE | ENSG00000166821\_PEX11A\_15\_-\_ 90229661\_ 90229777\_ 90224761\_ 90227179\_ 90233807\_ 90233893\_1.0,1.0 | -0.373 | Down | 5.77E-06 | 0.001592701 |
| LIMCH1 | SE | ENSG00000064042\_LIMCH1\_4\_+\_ 41553141\_ 41553208\_ 41526425\_ 41526495\_ 41553337\_ 41553412\_1.0,0.825 | -0.51 | Down | 5.91E-06 | 0.001592701 |
| HERC2P3 | SE | ENSG00000180229\_HERC2P3\_15\_-\_ 20657620\_ 20657812\_ 20651111\_ 20651299\_ 20658603\_ 20658755\_1.0,1.0 | -0.397 | Down | 5.89E-06 | 0.001592701 |
| IRF3 | SE | ENSG00000126456\_IRF3\_19\_-\_ 50163969\_ 50164085\_ 50162831\_ 50163090\_ 50165204\_ 50165585\_1.0,1.0 | -0.306 | Down | 5.87E-06 | 0.001592701 |
| DZANK1 | SE | ENSG00000089091\_DZANK1\_20\_-\_ 18440796\_ 18440950\_ 18435890\_ 18436005\_ 18445893\_ 18446096\_0.856,0.655 | 0.244 | Up | 6.09E-06 | 0.00161226 |
| PPP2R3C | SE | ENSG00000092020\_PPP2R3C\_14\_-\_ 35560275\_ 35560413\_ 35557156\_ 35557216\_ 35565763\_ 35565839\_0.778,0.656 | 0.283 | Up | 6.28E-06 | 0.001634799 |
| FHOD3 | SE | ENSG00000134775\_FHOD3\_18\_+\_ 34238037\_ 34238151\_ 34205473\_ 34205712\_ 34261398\_ 34261533\_0.0,0.452 | 0.774 | Up | 6.28E-06 | 0.001634799 |
| TMEM53 | SE | ENSG00000126106\_TMEM53\_1\_-\_ 45120611\_ 45120881\_ 45111031\_ 45111136\_ 45125845\_ 45125967\_0.826,0.421 | 0.377 | Up | 6.63E-06 | 0.001709246 |
| IRF3 | SE | ENSG00000126456\_IRF3\_19\_-\_ 50163969\_ 50164101\_ 50162825\_ 50163090\_ 50165204\_ 50165585\_1.0,1.0 | -0.387 | Down | 6.69E-06 | 0.0017119 |
| TYSND1 | SE | ENSG00000156521\_TYSND1\_10\_-\_ 71903597\_ 71903728\_ 71897736\_ 71899897\_ 71906288\_ 71906432\_1.0,1.0 | -0.401 | Down | 7.13E-06 | 0.001809331 |
| SCRN3 | SE | ENSG00000144306\_SCRN3\_2\_+\_175262063\_175262132\_175260522\_175261021\_175263002\_175263170\_0.0,0.0 | 0.549 | Up | 7.32E-06 | 0.001825079 |
| FOXM1 | SE | ENSG00000111206\_FOXM1\_12\_-\_ 2974520\_ 2974565\_ 2973848\_ 2973918\_ 2975558\_ 2975687\_0.734,0.883 | -0.235 | Down | 7.55E-06 | 0.001869343 |
| BRCA2 | SE | ENSG00000139618\_BRCA2\_13\_+\_ 32918694\_ 32918790\_ 32910401\_ 32915333\_ 32920963\_ 32921033\_1.0,1.0 | -0.278 | Down | 8.68E-06 | 0.001961193 |
| DIP2A | SE | ENSG00000160305\_DIP2A\_21\_+\_ 47924273\_ 47924402\_ 47918494\_ 47918746\_ 47929169\_ 47929289\_0.757,0.509 | 0.334 | Up | 8.05E-06 | 0.001961193 |
| ZNF562 | SE | ENSG00000171466\_ZNF562\_19\_-\_ 9768684\_ 9768811\_ 9764383\_ 9764557\_ 9785690\_ 9785776\_1.0,1.0 | -0.343 | Down | 8.61E-06 | 0.001961193 |
| DOPEY1 | SE | ENSG00000083097\_DOPEY1\_6\_+\_ 83863612\_ 83863762\_ 83863229\_ 83863339\_ 83863898\_ 83863960\_1.0,1.0 | -0.315 | Down | 8.22E-06 | 0.001961193 |
| ZHX3 | SE | ENSG00000174306\_ZHX3\_20\_-\_ 39842373\_ 39842539\_ 39830696\_ 39833706\_ 39867327\_ 39867436\_1.0,1.0 | -0.331 | Down | 8.68E-06 | 0.001961193 |
| NCOA1 | SE | ENSG00000084676\_NCOA1\_2\_+\_ 24778883\_ 24778924\_ 24777257\_ 24777442\_ 24787163\_ 24787299\_1.0,1.0 | -0.385 | Down | 8.58E-06 | 0.001961193 |
| ZBTB8OS | SE | ENSG00000176261\_ZBTB8OS\_1\_-\_ 33100368\_ 33100393\_ 33093108\_ 33093145\_ 33116033\_ 33116161\_1.0,1.0 | -0.59 | Down | 8.79E-06 | 0.001967431 |
| MRRF | SE | ENSG00000148187\_MRRF\_9\_+\_125048058\_125048225\_125047447\_125047566\_125048317\_125048445\_1.0,1.0 | -0.492 | Down | 9.00E-06 | 0.001998662 |
| IGFLR1 | SE | ENSG00000126246\_IGFLR1\_19\_-\_ 36230610\_ 36230670\_ 36230115\_ 36230527\_ 36231924\_ 36232124\_1.0,1.0 | -0.561 | Down | 9.10E-06 | 0.002006716 |
| GBA | SE | ENSG00000177628\_GBA\_1\_-\_155210876\_155210971\_155209676\_155209868\_155213885\_155214021\_0.675,0.165 | 0.58 | Up | 9.61E-06 | 0.002103876 |
| HIST1H2BJ | SE | ENSG00000124635\_HIST1H2BJ\_6\_-\_ 27095042\_ 27095180\_ 27094057\_ 27094241\_ 27100145\_ 27100541\_0.601,1.0 | -0.729 | Down | 1.01E-05 | 0.002184489 |
| TTN-AS1 | SE | ENSG00000237298\_TTN-AS1\_2\_+\_179396040\_179396305\_179388178\_179388363\_179400458\_179400555\_1.0,1.0 | -0.483 | Down | 1.02E-05 | 0.002188894 |
| DIP2A | SE | ENSG00000160305\_DIP2A\_21\_+\_ 47924270\_ 47924402\_ 47918494\_ 47918746\_ 47929169\_ 47929289\_0.642,0.278 | 0.47 | Up | 1.07E-05 | 0.00226127 |
| CCDC43 | SE | ENSG00000180329\_CCDC43\_17\_-\_ 42757952\_ 42758020\_ 42754850\_ 42756411\_ 42759370\_ 42759506\_1.0,1.0 | -0.256 | Down | 1.10E-05 | 0.002302079 |
| DPY19L2P1 | SE | ENSG00000189212\_DPY19L2P1\_7\_-\_ 35187402\_ 35187494\_ 35184602\_ 35184702\_ 35189699\_ 35189886\_1.0,1.0 | -0.432 | Down | 1.10E-05 | 0.002302079 |
| WASF1 | SE | ENSG00000112290\_WASF1\_6\_-\_110481837\_110481935\_110448671\_110448832\_110499800\_110499945\_0.328,0.207 | 0.51 | Up | 1.12E-05 | 0.002328363 |
| MKS1 | SE | ENSG00000011143\_MKS1\_17\_-\_ 56292101\_ 56292259\_ 56291619\_ 56291748\_ 56293448\_ 56293604\_1.0,1.0 | -0.44 | Down | 1.17E-05 | 0.002408956 |
| PXDN | SE | ENSG00000130508\_PXDN\_2\_-\_ 1691403\_ 1691475\_ 1687851\_ 1687923\_ 1695699\_ 1695771\_1.0,1.0 | -0.535 | Down | 1.19E-05 | 0.002439756 |
| PKIG | SE | ENSG00000168734\_PKIG\_20\_+\_ 43211225\_ 43211372\_ 43160425\_ 43160619\_ 43218437\_ 43218507\_0.139,0.042 | 0.369 | Up | 1.21E-05 | 0.002459117 |
| HDX | SE | ENSG00000165259\_HDX\_X\_-\_ 83695539\_ 83695593\_ 83616473\_ 83616620\_ 83723479\_ 83724583\_1.0,1.0 | -0.353 | Down | 1.27E-05 | 0.002556433 |
| PMF1 | SE | ENSG00000160783\_PMF1\_1\_+\_156195347\_156195459\_156182816\_156182967\_156203418\_156203519\_1.0,1.0 | -0.514 | Down | 1.35E-05 | 0.002706326 |
| ARHGAP12 | SE | ENSG00000165322\_ARHGAP12\_10\_-\_ 32128232\_ 32128247\_ 32120666\_ 32120728\_ 32128564\_ 32128639\_1.0,1.0 | -0.37 | Down | 1.40E-05 | 0.002740311 |
| C8orf44 | SE | ENSG00000213865\_C8orf44\_8\_+\_ 67588979\_ 67589137\_ 67579886\_ 67579936\_ 67589876\_ 67590189\_1.0,1.0 | -0.532 | Down | 1.39E-05 | 0.002740311 |
| MAPKBP1 | SE | ENSG00000137802\_MAPKBP1\_15\_+\_ 42107456\_ 42107603\_ 42106747\_ 42106937\_ 42107821\_ 42107997\_1.0,1.0 | -0.317 | Down | 1.43E-05 | 0.002791375 |
| ANKMY2 | SE | ENSG00000106524\_ANKMY2\_7\_-\_ 16664607\_ 16664706\_ 16655368\_ 16655529\_ 16666664\_ 16666803\_1.0,1.0 | -0.284 | Down | 1.46E-05 | 0.002819764 |
| PRPF39 | SE | ENSG00000185246\_PRPF39\_14\_+\_ 45565626\_ 45565695\_ 45565305\_ 45565431\_ 45565798\_ 45565961\_0.401,0.0 | 0.728 | Up | 1.46E-05 | 0.002819764 |
| HERC2P3 | SE | ENSG00000180229\_HERC2P3\_15\_-\_ 20657620\_ 20657841\_ 20651111\_ 20651299\_ 20658603\_ 20658755\_1.0,1.0 | -0.355 | Down | 1.52E-05 | 0.00284181 |
| TOP1MT | SE | ENSG00000184428\_TOP1MT\_8\_-\_144414656\_144414771\_144413393\_144413509\_144416909\_144417024\_0.523,0.354 | -0.421 | Down | 1.51E-05 | 0.00284181 |
| METTL23 | SE | ENSG00000181038\_METTL23\_17\_+\_ 74723051\_ 74723295\_ 74722924\_ 74722961\_ 74725771\_ 74725876\_1.0,1.0 | -0.469 | Down | 1.51E-05 | 0.00284181 |
| FAM195A | SE | ENSG00000172366\_FAM195A\_16\_+\_ 692119\_ 692249\_ 691928\_ 692043\_ 696471\_ 696608\_0.0,0.0 | 0.397 | Up | 1.49E-05 | 0.00284181 |
| BDP1 | SE | ENSG00000145734\_BDP1\_5\_+\_ 70858601\_ 70858722\_ 70858100\_ 70858347\_ 70860580\_ 70863647\_1.0,0.874 | -0.475 | Down | 1.59E-05 | 0.002895937 |
| GGA3 | SE | ENSG00000125447\_GGA3\_17\_-\_ 73244920\_ 73245089\_ 73242792\_ 73242877\_ 73257628\_ 73257681\_0.474,1.0 | -0.737 | Down | 1.67E-05 | 0.002979525 |
| PRIMPOL | SE | ENSG00000164306\_PRIMPOL\_4\_+\_185606565\_185606652\_185603401\_185603490\_185606729\_185606838\_1.0,1.0 | -0.262 | Down | 1.67E-05 | 0.002979525 |
| TTLL11 | SE | ENSG00000175764\_TTLL11\_9\_-\_124622615\_124622722\_124584249\_124585158\_124632775\_124633027\_0.531,0.0 | 0.734 | Up | 1.71E-05 | 0.002979525 |
| MAP2K5 | SE | ENSG00000137764\_MAP2K5\_15\_+\_ 68020253\_ 68020283\_ 67995674\_ 67995746\_ 68040568\_ 68040595\_1.0,1.0 | -0.408 | Down | 1.70E-05 | 0.002979525 |
| C5orf45 | SE | ENSG00000161010\_C5orf45\_5\_-\_179267871\_179267959\_179264275\_179264885\_179268906\_179269064\_1.0,1.0 | -0.292 | Down | 1.75E-05 | 0.002979829 |
| KLHDC10 | SE | ENSG00000128607\_KLHDC10\_7\_+\_129736760\_129736847\_129710349\_129710649\_129756284\_129756506\_0.822,0.661 | -0.46 | Down | 1.75E-05 | 0.002979829 |
| FER | SE | ENSG00000151422\_FER\_5\_+\_108103793\_108103939\_108083522\_108083701\_108133824\_108134090\_0.328,0.573 | 0.489 | Up | 1.74E-05 | 0.002979829 |
| C3orf18 | SE | ENSG00000088543\_C3orf18\_3\_-\_ 50602896\_ 50603292\_ 50599152\_ 50599178\_ 50604893\_ 50605111\_0.409,0.7 | 0.446 | Up | 1.78E-05 | 0.0029882 |
| GPR98 | SE | ENSG00000164199\_GPR98\_5\_+\_ 89975365\_ 89975446\_ 89971896\_ 89972026\_ 89977131\_ 89977271\_0.0,0.387 | 0.806 | Up | 1.85E-05 | 0.003037486 |
| ZNF827 | SE | ENSG00000151612\_ZNF827\_4\_-\_146684241\_146684274\_146678778\_146682750\_146686130\_146686317\_1.0,1.0 | -0.44 | Down | 1.88E-05 | 0.003055257 |
| LPCAT4 | SE | ENSG00000176454\_LPCAT4\_15\_-\_ 34653600\_ 34653733\_ 34651789\_ 34652410\_ 34654396\_ 34654522\_1.0,1.0 | -0.379 | Down | 1.92E-05 | 0.003110787 |
| DCLRE1C | SE | ENSG00000152457\_DCLRE1C\_10\_-\_ 14978536\_ 14978592\_ 14977461\_ 14977563\_ 14981808\_ 14981868\_1.0,1.0 | -0.368 | Down | 1.96E-05 | 0.00316014 |
| GAA | SE | ENSG00000171298\_GAA\_17\_+\_ 78075609\_ 78075689\_ 78075392\_ 78075424\_ 78078353\_ 78078931\_0.323,0.805 | 0.436 | Up | 2.01E-05 | 0.003212655 |
| WASF3 | SE | ENSG00000132970\_WASF3\_13\_+\_ 27254171\_ 27254338\_ 27246008\_ 27246126\_ 27255190\_ 27255457\_1.0,1.0 | -0.399 | Down | 2.03E-05 | 0.00322606 |
| SDR39U1 | SE | ENSG00000100445\_SDR39U1\_14\_-\_ 24910879\_ 24911001\_ 24910059\_ 24910132\_ 24911383\_ 24911472\_1.0,0.914 | -0.341 | Down | 2.18E-05 | 0.003423667 |
| ST7-OT4 | SE | ENSG00000214188\_ST7-OT4\_7\_+\_116595027\_116595207\_116594673\_116594733\_116738666\_116738860\_1.0,1.0 | -0.385 | Down | 2.21E-05 | 0.003442977 |
| WDR62 | SE | ENSG00000075702\_WDR62\_19\_+\_ 36592565\_ 36592676\_ 36592115\_ 36592219\_ 36592915\_ 36593053\_1.0,1.0 | -0.265 | Down | 2.22E-05 | 0.003446302 |
| SAC3D1 | SE | ENSG00000168061\_SAC3D1\_11\_+\_ 64808757\_ 64809338\_ 64808372\_ 64808578\_ 64811696\_ 64812271\_1.0,1.0 | -0.385 | Down | 2.23E-05 | 0.003446302 |
| SNX10 | SE | ENSG00000086300\_SNX10\_7\_+\_ 26396626\_ 26396747\_ 26393676\_ 26393804\_ 26400594\_ 26400651\_1.0,1.0 | -0.464 | Down | 2.31E-05 | 0.003532612 |
| ALDOA | SE | ENSG00000149925\_ALDOA\_16\_+\_ 30066104\_ 30066248\_ 30064784\_ 30064820\_ 30075049\_ 30075359\_0.0,0.329 | 0.739 | Up | 2.35E-05 | 0.003571281 |
| PAQR3 | SE | ENSG00000163291\_PAQR3\_4\_-\_ 79843982\_ 79844137\_ 79843294\_ 79843575\_ 79845010\_ 79845101\_0.486,0.24 | -0.363 | Down | 2.45E-05 | 0.003670417 |
| EXO5 | SE | ENSG00000164002\_EXO5\_1\_+\_ 40975122\_ 40975297\_ 40974461\_ 40974580\_ 40980186\_ 40980518\_0.069,0.0 | 0.514 | Up | 2.50E-05 | 0.00373343 |
| MAP2 | SE | ENSG00000078018\_MAP2\_2\_+\_210561265\_210561472\_210561037\_210561074\_210565000\_210565062\_1.0,0.0 | 0.5 | Up | 2.57E-05 | 0.003777263 |
| CAMTA1 | SE | ENSG00000171735\_CAMTA1\_1\_+\_ 6867042\_ 6867148\_ 6845577\_ 6845635\_ 6931816\_ 6932079\_0.221,0.63 | -0.425 | Down | 2.56E-05 | 0.003777263 |
| GOLGA2 | SE | ENSG00000167110\_GOLGA2\_9\_-\_131035063\_131035144\_131030698\_131030803\_131036128\_131036132\_0.136,0.0 | 0.283 | Up | 2.61E-05 | 0.003812847 |
| PIGO | SE | ENSG00000165282\_PIGO\_9\_-\_ 35096151\_ 35096477\_ 35095140\_ 35095563\_ 35096557\_ 35096591\_0.0,0.0 | 0.439 | Up | 2.65E-05 | 0.003854043 |
| MKS1 | SE | ENSG00000011143\_MKS1\_17\_-\_ 56292101\_ 56292199\_ 56291619\_ 56291748\_ 56293448\_ 56293604\_1.0,1.0 | -0.223 | Down | 2.77E-05 | 0.004011108 |
| KIAA1191 | SE | ENSG00000122203\_KIAA1191\_5\_-\_175786483\_175786570\_175775252\_175775359\_175788604\_175788764\_1.0,1.0 | -0.448 | Down | 3.00E-05 | 0.004305117 |
| OGG1 | SE | ENSG00000114026\_OGG1\_3\_+\_ 9796387\_ 9796569\_ 9793453\_ 9793633\_ 9807492\_ 9808352\_1.0,1.0 | -0.346 | Down | 3.02E-05 | 0.004311637 |
| SLC37A3 | SE | ENSG00000157800\_SLC37A3\_7\_-\_140043211\_140043363\_140037083\_140037149\_140045668\_140045770\_0.866,0.679 | 0.213 | Up | 3.04E-05 | 0.004321165 |
| B4GALNT4 | SE | ENSG00000182272\_B4GALNT4\_11\_+\_ 380670\_ 380951\_ 380291\_ 380445\_ 381668\_ 382109\_1.0,1.0 | -0.339 | Down | 3.34E-05 | 0.00468654 |
| PRKRIP1 | SE | ENSG00000128563\_PRKRIP1\_7\_+\_102036423\_102036984\_102016658\_102016769\_102039994\_102040095\_1.0,1.0 | -0.365 | Down | 3.34E-05 | 0.00468654 |
| ECHDC2 | SE | ENSG00000121310\_ECHDC2\_1\_-\_ 53363108\_ 53363156\_ 53362074\_ 53362269\_ 53364845\_ 53364896\_1.0,0.748 | -0.622 | Down | 3.36E-05 | 0.004687121 |
| ZNF445 | SE | ENSG00000185219\_ZNF445\_3\_-\_ 44492805\_ 44492974\_ 44492359\_ 44492454\_ 44496612\_ 44497188\_1.0,1.0 | -0.324 | Down | 3.43E-05 | 0.00477092 |
| SDR39U1 | SE | ENSG00000100445\_SDR39U1\_14\_-\_ 24910883\_ 24911001\_ 24909988\_ 24910132\_ 24911383\_ 24911466\_1.0,0.856 | -0.604 | Down | 3.49E-05 | 0.00480252 |
| DLGAP4 | SE | ENSG00000080845\_DLGAP4\_20\_+\_ 35093667\_ 35093770\_ 35089870\_ 35089913\_ 35125107\_ 35125469\_1.0,0.277 | -0.639 | Down | 3.53E-05 | 0.004820402 |
| SLC43A1 | SE | ENSG00000149150\_SLC43A1\_11\_-\_ 57259063\_ 57259099\_ 57256723\_ 57256865\_ 57259188\_ 57259335\_1.0,1.0 | -0.309 | Down | 3.59E-05 | 0.004860079 |
| AFMID | SE | ENSG00000183077\_AFMID\_17\_+\_ 76198783\_ 76198832\_ 76187050\_ 76187141\_ 76202026\_ 76202131\_1.0,1.0 | -0.263 | Down | 3.63E-05 | 0.004866172 |
| P4HTM | SE | ENSG00000178467\_P4HTM\_3\_+\_ 49041530\_ 49041693\_ 49039932\_ 49040029\_ 49044119\_ 49044548\_1.0,1.0 | -0.317 | Down | 3.63E-05 | 0.004866172 |
| CCDC171 | SE | ENSG00000164989\_CCDC171\_9\_+\_ 15594038\_ 15594170\_ 15591363\_ 15591554\_ 15623264\_ 15623411\_1.0,1.0 | -0.352 | Down | 3.65E-05 | 0.004866172 |
| CEP57L1 | SE | ENSG00000183137\_CEP57L1\_6\_+\_109476993\_109477080\_109476432\_109476510\_109480227\_109480305\_1.0,1.0 | -0.313 | Down | 3.74E-05 | 0.004922974 |
| AKAP13 | SE | ENSG00000170776\_AKAP13\_15\_+\_ 86205618\_ 86205684\_ 86201767\_ 86201821\_ 86207793\_ 86207986\_0.576,0.629 | -0.511 | Down | 3.72E-05 | 0.004922974 |
| MPDZ | SE | ENSG00000107186\_MPDZ\_9\_-\_ 13143464\_ 13143563\_ 13139985\_ 13140148\_ 13147546\_ 13147657\_0.0,0.0 | 0.433 | Up | 3.79E-05 | 0.004931231 |
| PXN | SE | ENSG00000089159\_PXN\_12\_-\_120653362\_120653464\_120652905\_120653220\_120659425\_120659561\_0.026,0.1 | 0.203 | Up | 3.83E-05 | 0.004957991 |
| C4orf36 | SE | ENSG00000163633\_C4orf36\_4\_-\_ 87853373\_ 87853471\_ 87847018\_ 87847478\_ 87854546\_ 87854694\_0.128,0.24 | 0.652 | Up | 3.95E-05 | 0.005037121 |
| MYO5A | SE | ENSG00000197535\_MYO5A\_15\_-\_ 52641014\_ 52641023\_ 52638557\_ 52638658\_ 52643450\_ 52643678\_0.0,0.0 | 0.511 | Up | 3.92E-05 | 0.005037121 |
| TPCN1 | SE | ENSG00000186815\_TPCN1\_12\_+\_113663048\_113663141\_113659264\_113659431\_113664532\_113664769\_1.0,0.857 | -0.519 | Down | 3.94E-05 | 0.005037121 |
| SCYL3 | SE | ENSG00000000457\_SCYL3\_1\_-\_169828181\_169828353\_169824936\_169825098\_169831753\_169831938\_0.668,0.691 | 0.321 | Up | 3.96E-05 | 0.005037121 |
| IFT122 | SE | ENSG00000163913\_IFT122\_3\_+\_129183477\_129183624\_129182402\_129182469\_129188184\_129188260\_1.0,1.0 | -0.246 | Down | 4.16E-05 | 0.005215034 |
| COBL | SE | ENSG00000106078\_COBL\_7\_-\_ 51240152\_ 51240227\_ 51203854\_ 51204028\_ 51251798\_ 51251896\_0.0,0.115 | 0.323 | Up | 4.15E-05 | 0.005215034 |
| SFMBT1 | SE | ENSG00000163935\_SFMBT1\_3\_-\_ 53077151\_ 53077270\_ 53003116\_ 53003274\_ 53080475\_ 53080766\_0.0,0.212 | 0.789 | Up | 4.34E-05 | 0.005416535 |
| GORAB | SE | ENSG00000120370\_GORAB\_1\_+\_170505450\_170505562\_170502604\_170502792\_170508350\_170508708\_0.0,0.0 | 0.609 | Up | 4.74E-05 | 0.005782946 |
| TACC2 | SE | ENSG00000138162\_TACC2\_10\_+\_123892123\_123892249\_123872553\_123872748\_123954554\_123954691\_1.0,1.0 | -0.299 | Down | 4.75E-05 | 0.005782946 |
| IL15RA | SE | ENSG00000134470\_IL15RA\_10\_-\_ 6005705\_ 6005804\_ 6002329\_ 6002530\_ 6008107\_ 6008302\_0.0,0.0 | 0.347 | Up | 4.81E-05 | 0.005831693 |
| KIF9 | SE | ENSG00000088727\_KIF9\_3\_-\_ 47284540\_ 47284735\_ 47282290\_ 47282505\_ 47286280\_ 47286414\_1.0,1.0 | -0.432 | Down | 4.86E-05 | 0.005852162 |
| GGCT | SE | ENSG00000006625\_GGCT\_7\_-\_ 30537356\_ 30537512\_ 30536592\_ 30536851\_ 30540151\_ 30540297\_0.0,0.0 | 0.216 | Up | 5.18E-05 | 0.006156068 |
| PNISR | SE | ENSG00000132424\_PNISR\_6\_-\_ 99851704\_ 99851758\_ 99850415\_ 99850586\_ 99852478\_ 99852578\_1.0,1.0 | -0.248 | Down | 5.23E-05 | 0.006196658 |
| DDX55 | SE | ENSG00000111364\_DDX55\_12\_+\_124090477\_124090706\_124086645\_124086803\_124092146\_124092209\_0.274,0.159 | 0.61 | Up | 5.46E-05 | 0.006411152 |
| ZNF786 | SE | ENSG00000197362\_ZNF786\_7\_-\_148777682\_148777809\_148771477\_148771630\_148787714\_148787797\_1.0,1.0 | -0.27 | Down | 5.62E-05 | 0.006578308 |
| SLC37A3 | SE | ENSG00000157800\_SLC37A3\_7\_-\_140045015\_140045063\_140037083\_140037149\_140045668\_140045770\_0.69,0.489 | 0.351 | Up | 5.69E-05 | 0.006593748 |
| BANP | SE | ENSG00000172530\_BANP\_16\_+\_ 88008653\_ 88008809\_ 87985039\_ 87985121\_ 88014641\_ 88014733\_1.0,1.0 | -0.244 | Down | 5.70E-05 | 0.006593748 |
| TEAD2 | SE | ENSG00000074219\_TEAD2\_19\_-\_ 49859215\_ 49859227\_ 49858568\_ 49858676\_ 49860508\_ 49860571\_0.0,0.093 | 0.517 | Up | 5.73E-05 | 0.006608745 |
| OCIAD1 | SE | ENSG00000109180\_OCIAD1\_4\_+\_ 48833243\_ 48833266\_ 48833079\_ 48833158\_ 48834636\_ 48834699\_0.0,0.3 | 0.737 | Up | 5.80E-05 | 0.006640329 |
| AHI1 | SE | ENSG00000135541\_AHI1\_6\_-\_135818325\_135818387\_135813365\_135813429\_135818720\_135818903\_0.257,0.862 | 0.441 | Up | 5.80E-05 | 0.006640329 |
| ZNF845 | SE | ENSG00000213799\_ZNF845\_19\_+\_ 53844076\_ 53844178\_ 53837001\_ 53837045\_ 53844487\_ 53844575\_0.224,0.0 | 0.384 | Up | 5.92E-05 | 0.006749472 |
| WNK2 | SE | ENSG00000165238\_WNK2\_9\_+\_ 96061351\_ 96061543\_ 96060134\_ 96060349\_ 96070609\_ 96070866\_1.0,1.0 | -0.279 | Down | 6.00E-05 | 0.00681877 |
| TGFBR2 | SE | ENSG00000163513\_TGFBR2\_3\_+\_ 30664690\_ 30664765\_ 30648092\_ 30648469\_ 30686238\_ 30686407\_0.661,1.0 | -0.49 | Down | 6.07E-05 | 0.006869797 |
| DYX1C1 | SE | ENSG00000256061\_DYX1C1\_15\_-\_ 55724694\_ 55724800\_ 55722505\_ 55722977\_ 55727102\_ 55727256\_0.0,0.63 | 0.585 | Up | 6.21E-05 | 0.006996571 |
| CENPK | SE | ENSG00000123219\_CENPK\_5\_-\_ 64850623\_ 64850725\_ 64848319\_ 64848376\_ 64857289\_ 64857391\_0.555,0.852 | 0.265 | Up | 6.27E-05 | 0.007046394 |
| PIGO | SE | ENSG00000165282\_PIGO\_9\_-\_ 35095875\_ 35095973\_ 35095051\_ 35095563\_ 35096151\_ 35096217\_1.0,1.0 | -0.394 | Down | 6.46E-05 | 0.007174123 |
| ZC3HC1 | SE | ENSG00000091732\_ZC3HC1\_7\_-\_129688813\_129688984\_129679303\_129679387\_129691060\_129691209\_0.711,0.593 | 0.327 | Up | 6.67E-05 | 0.007278945 |
| TMEM25 | SE | ENSG00000149582\_TMEM25\_11\_+\_118404134\_118404266\_118402864\_118403176\_118404571\_118404602\_0.878,0.902 | -0.283 | Down | 6.67E-05 | 0.007278945 |
| AP1G1 | SE | ENSG00000166747\_AP1G1\_16\_-\_ 71841703\_ 71841741\_ 71823222\_ 71823385\_ 71841917\_ 71842053\_0.0,0.0 | 0.243 | Up | 6.80E-05 | 0.007382702 |
| SLC26A1 | SE | ENSG00000145217\_SLC26A1\_4\_-\_ 986508\_ 986723\_ 984915\_ 985518\_ 987088\_ 987224\_1.0,0.44 | -0.638 | Down | 6.82E-05 | 0.007382702 |
| EEF1D | SE | ENSG00000104529\_EEF1D\_8\_-\_144672777\_144672908\_144672157\_144672251\_144679048\_144679275\_0.0,0.34 | 0.83 | Up | 7.09E-05 | 0.007628796 |
| BANP | SE | ENSG00000172530\_BANP\_16\_+\_ 88008653\_ 88008813\_ 87985086\_ 87985121\_ 88014641\_ 88014733\_1.0,1.0 | -0.245 | Down | 7.46E-05 | 0.007936532 |
| CXorf38 | SE | ENSG00000185753\_CXorf38\_X\_-\_ 40498260\_ 40499572\_ 40496258\_ 40496408\_ 40506258\_ 40506393\_1.0,1.0 | -0.353 | Down | 7.55E-05 | 0.007941998 |
| RBBP8NL | SE | ENSG00000130701\_RBBP8NL\_20\_-\_ 60990176\_ 60990343\_ 60988876\_ 60989612\_ 60990633\_ 60990716\_1.0,1.0 | -0.291 | Down | 7.55E-05 | 0.007941998 |
| DBF4B | SE | ENSG00000161692\_DBF4B\_17\_+\_ 42809545\_ 42809633\_ 42808332\_ 42808383\_ 42811457\_ 42811531\_0.0,0.149 | 0.594 | Up | 7.59E-05 | 0.007941998 |
| TBCD | SE | ENSG00000141556\_TBCD\_17\_+\_ 80867160\_ 80867183\_ 80863811\_ 80863929\_ 80869633\_ 80869665\_1.0,1.0 | -0.21 | Down | 7.72E-05 | 0.007992942 |
| RALGAPB | SE | ENSG00000170471\_RALGAPB\_20\_+\_ 37198530\_ 37198639\_ 37195738\_ 37195875\_ 37202792\_ 37202941\_1.0,1.0 | -0.307 | Down | 7.93E-05 | 0.008187167 |
| C6orf52 | SE | ENSG00000137434\_C6orf52\_6\_-\_ 10685081\_ 10685156\_ 10683419\_ 10683465\_ 10687198\_ 10687397\_0.0,0.0 | 0.22 | Up | 8.21E-05 | 0.00843726 |
| FAM86C2P | SE | ENSG00000160172\_FAM86C2P\_11\_-\_ 67564154\_ 67564304\_ 67559237\_ 67560764\_ 67570472\_ 67570535\_0.138,0.0 | 0.35 | Up | 8.23E-05 | 0.00843726 |
| WNK1 | SE | ENSG00000060237\_WNK1\_12\_+\_ 988738\_ 989197\_ 987377\_ 987527\_ 990857\_ 990955\_0.482,0.532 | -0.223 | Down | 8.52E-05 | 0.008648722 |
| SGK1 | SE | ENSG00000118515\_SGK1\_6\_-\_134491963\_134492053\_134490383\_134491573\_134492160\_134492316\_1.0,1.0 | -0.677 | Down | 8.83E-05 | 0.008891839 |
| ACIN1 | SE | ENSG00000100813\_ACIN1\_14\_-\_ 23559190\_ 23559310\_ 23550956\_ 23551045\_ 23559730\_ 23559842\_0.349,0.239 | -0.206 | Down | 9.00E-05 | 0.009002419 |
| IGFLR1 | SE | ENSG00000126246\_IGFLR1\_19\_-\_ 36231280\_ 36231465\_ 36230157\_ 36230527\_ 36231924\_ 36232124\_1.0,1.0 | -0.31 | Down | 9.11E-05 | 0.009027383 |
| CHMP4C | SE | ENSG00000164695\_CHMP4C\_8\_+\_ 82665298\_ 82665476\_ 82644668\_ 82645051\_ 82667604\_ 82667719\_1.0,1.0 | -0.246 | Down | 9.15E-05 | 0.009046516 |
| MB | SE | ENSG00000198125\_MB\_22\_-\_ 36013209\_ 36013312\_ 36006930\_ 36007153\_ 36019237\_ 36019448\_0.564,0.775 | 0.302 | Up | 9.32E-05 | 0.009123313 |
| C4orf29 | SE | ENSG00000164074\_C4orf29\_4\_+\_128922870\_128922915\_128905493\_128905578\_128930074\_128930153\_0.0,0.0 | 0.681 | Up | 9.36E-05 | 0.009133248 |
| PDDC1 | SE | ENSG00000177225\_PDDC1\_11\_-\_ 770313\_ 770398\_ 767219\_ 767373\_ 771332\_ 771426\_0.0,0.0 | 0.327 | Up | 9.42E-05 | 0.009133262 |
| OSBPL5 | SE | ENSG00000021762\_OSBPL5\_11\_-\_ 3141773\_ 3141854\_ 3140776\_ 3140861\_ 3143226\_ 3143328\_0.655,1.0 | -0.459 | Down | 9.48E-05 | 0.009161568 |
| FAM160A1 | SE | ENSG00000164142\_FAM160A1\_4\_+\_152403675\_152403800\_152330503\_152330617\_152487289\_152487516\_0.0,0.26 | 0.662 | Up | 9.71E-05 | 0.009262856 |
| HDLBP | SE | ENSG00000115677\_HDLBP\_2\_-\_242208368\_242208520\_242207891\_242207956\_242208620\_242208710\_0.489,0.544 | 0.484 | Up | 9.69E-05 | 0.009262856 |
| LETMD1 | SE | ENSG00000050426\_LETMD1\_12\_+\_ 51449932\_ 51450028\_ 51447560\_ 51447643\_ 51450132\_ 51450285\_1.0,1.0 | -0.222 | Down | 9.85E-05 | 0.009343877 |
| ZNF562 | SE | ENSG00000171466\_ZNF562\_19\_-\_ 9770054\_ 9770143\_ 9767222\_ 9767329\_ 9771395\_ 9771550\_1.0,1.0 | -0.254 | Down | 0.00010104 | 0.009521371 |
| SLC45A4 | SE | ENSG00000022567\_SLC45A4\_8\_-\_142231675\_142231864\_142229748\_142229928\_142264087\_142264328\_1.0,1.0 | -0.233 | Down | 0.00010092 | 0.009521371 |
| HERC3 | SE | ENSG00000138641\_HERC3\_4\_+\_ 89597368\_ 89597392\_ 89591289\_ 89591403\_ 89597484\_ 89597574\_0.793,1.0 | -0.432 | Down | 0.00010267 | 0.009644921 |
| LIMCH1 | SE | ENSG00000064042\_LIMCH1\_4\_+\_ 41631508\_ 41631751\_ 41621204\_ 41621457\_ 41633164\_ 41633494\_1.0,1.0 | -0.524 | Down | 0.00010543 | 0.009843741 |
| TTC6 | SE | ENSG00000139865\_TTC6\_14\_+\_ 38222303\_ 38222440\_ 38218918\_ 38219048\_ 38259921\_ 38260042\_1.0,1.0 | -0.297 | Down | 0.0001065 | 0.009883163 |
| SLC41A2 | SE | ENSG00000136052\_SLC41A2\_12\_-\_105325409\_105325569\_105322077\_105322472\_105351865\_105352066\_0.189,0.65 | -0.419 | Down | 0.00010746 | 0.009911605 |
| PARP11 | SE | ENSG00000111224\_PARP11\_12\_-\_ 3973001\_ 3973123\_ 3939055\_ 3939184\_ 3982377\_ 3982521\_1.0,1.0 | -0.258 | Down | 0.00010736 | 0.009911605 |
| KIAA1958 | SE | ENSG00000165185\_KIAA1958\_9\_+\_115380150\_115380234\_115336336\_115337531\_115407929\_115408102\_0.0,0.0 | 0.3 | Up | 0.00010944 | 0.010063718 |
| ATP2C1 | SE | ENSG00000017260\_ATP2C1\_3\_+\_130613551\_130613619\_130612834\_130613181\_130649259\_130649370\_0.881,1.0 | -0.221 | Down | 0.00011138 | 0.010150405 |
| UFM1 | SE | ENSG00000120686\_UFM1\_13\_+\_ 38932229\_ 38932269\_ 38928375\_ 38928433\_ 38933437\_ 38933470\_0.538,0.437 | 0.415 | Up | 0.00011263 | 0.010233247 |
| ZNF639 | SE | ENSG00000121864\_ZNF639\_3\_+\_179042829\_179043110\_179040863\_179041079\_179045348\_179045419\_1.0,1.0 | -0.302 | Down | 0.00011632 | 0.010443899 |
| DPM1 | SE | ENSG00000000419\_DPM1\_20\_-\_ 49557641\_ 49557746\_ 49557401\_ 49557492\_ 49558567\_ 49558663\_1.0,1.0 | -0.228 | Down | 0.00011679 | 0.010455347 |
| GMIP | SE | ENSG00000089639\_GMIP\_19\_-\_ 19746452\_ 19746530\_ 19746223\_ 19746378\_ 19747515\_ 19747596\_1.0,1.0 | -0.245 | Down | 0.00011935 | 0.010565521 |
| TMEM129 | SE | ENSG00000168936\_TMEM129\_4\_-\_ 1719242\_ 1719430\_ 1718327\_ 1719155\_ 1719878\_ 1719962\_0.68,0.872 | 0.224 | Up | 0.00011998 | 0.010565521 |
| B4GALNT1 | SE | ENSG00000135454\_B4GALNT1\_12\_-\_ 58024982\_ 58025147\_ 58024762\_ 58024869\_ 58025697\_ 58025916\_1.0,1.0 | -0.253 | Down | 0.00011931 | 0.010565521 |
| ZNF92 | SE | ENSG00000146757\_ZNF92\_7\_+\_ 64852814\_ 64852941\_ 64838711\_ 64838913\_ 64863253\_ 64865997\_1.0,1.0 | -0.211 | Down | 0.00011984 | 0.010565521 |
| RAB17 | SE | ENSG00000124839\_RAB17\_2\_-\_238486646\_238486798\_238485899\_238486025\_238494640\_238494800\_1.0,1.0 | -0.215 | Down | 0.00012135 | 0.010616834 |
| PICALM | SE | ENSG00000073921\_PICALM\_11\_-\_ 85701292\_ 85701421\_ 85692914\_ 85693046\_ 85707868\_ 85707972\_0.464,0.539 | 0.434 | Up | 0.0001235 | 0.010740554 |
| C2 | SE | ENSG00000166278\_C2\_6\_+\_ 31901942\_ 31902076\_ 31901643\_ 31901742\_ 31903699\_ 31903767\_0.203,0.604 | 0.597 | Up | 0.00012463 | 0.010807513 |
| NEK1 | SE | ENSG00000137601\_NEK1\_4\_-\_170476870\_170477002\_170458959\_170459062\_170477082\_170477246\_0.339,0.596 | 0.424 | Up | 0.0001259 | 0.010863336 |
| ZNF75A | SE | ENSG00000162086\_ZNF75A\_16\_+\_ 3358312\_ 3358836\_ 3355405\_ 3355643\_ 3361752\_ 3361948\_1.0,1.0 | -0.331 | Down | 0.00013137 | 0.01126418 |
| GOSR2 | SE | ENSG00000108433\_GOSR2\_17\_+\_ 45008464\_ 45008573\_ 45006885\_ 45006950\_ 45009432\_ 45009565\_0.789,0.619 | 0.238 | Up | 0.00013316 | 0.011353676 |
| TCTN1 | SE | ENSG00000204852\_TCTN1\_12\_+\_111082771\_111082934\_111078250\_111078322\_111085000\_111085141\_0.315,0.535 | 0.468 | Up | 0.00013315 | 0.011353676 |
| ABHD2 | SE | ENSG00000140526\_ABHD2\_15\_+\_ 89647133\_ 89647275\_ 89645671\_ 89645807\_ 89656955\_ 89657055\_1.0,1.0 | -0.298 | Down | 0.00013607 | 0.011472943 |
| ACAD10 | SE | ENSG00000111271\_ACAD10\_12\_+\_112167609\_112167760\_112165765\_112165947\_112174634\_112174808\_1.0,1.0 | -0.492 | Down | 0.00013707 | 0.011525492 |
| ZNF573 | SE | ENSG00000189144\_ZNF573\_19\_-\_ 38263577\_ 38263622\_ 38262203\_ 38262336\_ 38264300\_ 38264391\_0.312,0.131 | -0.202 | Down | 0.00013856 | 0.011618611 |
| AC104667.3 | SE | ENSG00000234949\_AC104667.3\_2\_+\_238500514\_238500674\_238499811\_238499910\_238503582\_238504624\_1.0,0.538 | 0.231 | Up | 0.00013991 | 0.011699502 |
| BCAS3 | SE | ENSG00000141376\_BCAS3\_17\_+\_ 59457866\_ 59457932\_ 59445687\_ 59445855\_ 59469337\_ 59469543\_0.253,0.0 | 0.414 | Up | 0.00014528 | 0.01202122 |
| WRN | SE | ENSG00000165392\_WRN\_8\_+\_ 30947980\_ 30948048\_ 30946405\_ 30946481\_ 30948349\_ 30948458\_1.0,1.0 | -0.309 | Down | 0.00014804 | 0.012178606 |
| TMEM25 | SE | ENSG00000149582\_TMEM25\_11\_+\_118403631\_118403922\_118403124\_118403176\_118404571\_118404602\_0.88,0.917 | -0.244 | Down | 0.00014896 | 0.012212459 |
| FAM86A | SE | ENSG00000118894\_FAM86A\_16\_-\_ 5141794\_ 5141896\_ 5140084\_ 5140566\_ 5143484\_ 5143565\_1.0,0.912 | -0.368 | Down | 0.00015187 | 0.012293937 |
| MTMR14 | SE | ENSG00000163719\_MTMR14\_3\_+\_ 9731647\_ 9731827\_ 9730627\_ 9730766\_ 9739394\_ 9739550\_1.0,1.0 | -0.222 | Down | 0.00015362 | 0.012378174 |
| ZNF44 | SE | ENSG00000197857\_ZNF44\_19\_-\_ 12404046\_ 12404190\_ 12386770\_ 12386897\_ 12405506\_ 12405666\_0.496,0.7 | -0.413 | Down | 0.00015518 | 0.012397189 |
| GTDC1 | SE | ENSG00000121964\_GTDC1\_2\_-\_144728219\_144728329\_144710339\_144710410\_144764748\_144765102\_1.0,1.0 | -0.371 | Down | 0.00015678 | 0.012427156 |
| PEX10 | SE | ENSG00000157911\_PEX10\_1\_-\_ 2342068\_ 2342307\_ 2341809\_ 2341890\_ 2343829\_ 2343953\_0.227,0.109 | 0.265 | Up | 0.00015636 | 0.012427156 |
| TMEM241 | SE | ENSG00000134490\_TMEM241\_18\_-\_ 20950179\_ 20950225\_ 20936557\_ 20936627\_ 20951385\_ 20951434\_0.238,0.231 | 0.441 | Up | 0.00016864 | 0.013191699 |
| SPG11 | SE | ENSG00000104133\_SPG11\_15\_-\_ 44881449\_ 44881612\_ 44878035\_ 44878048\_ 44884528\_ 44884636\_0.775,0.769 | 0.228 | Up | 0.00016946 | 0.013191699 |
| DMTF1 | SE | ENSG00000135164\_DMTF1\_7\_+\_ 86783705\_ 86783844\_ 86781755\_ 86781871\_ 86792810\_ 86792933\_1.0,0.6 | -0.601 | Down | 0.00017169 | 0.013297198 |
| SLC1A3 | SE | ENSG00000079215\_SLC1A3\_5\_+\_ 36683965\_ 36684100\_ 36680496\_ 36680691\_ 36686166\_ 36688436\_1.0,1.0 | -0.24 | Down | 0.00017423 | 0.01342611 |
| SYNE4 | SE | ENSG00000181392\_SYNE4\_19\_-\_ 36497324\_ 36497573\_ 36496234\_ 36496339\_ 36499118\_ 36499269\_0.323,0.301 | 0.569 | Up | 0.00017844 | 0.013715856 |
| LPHN1 | SE | ENSG00000072071\_LPHN1\_19\_-\_ 14275432\_ 14275517\_ 14273759\_ 14274218\_ 14277827\_ 14277842\_1.0,0.756 | -0.482 | Down | 0.00018109 | 0.013883955 |
| NEDD1 | SE | ENSG00000139350\_NEDD1\_12\_+\_ 97311398\_ 97311515\_ 97301381\_ 97301634\_ 97313762\_ 97313896\_1.0,1.0 | -0.243 | Down | 0.00018702 | 0.014120113 |
| UBA1 | SE | ENSG00000130985\_UBA1\_X\_+\_ 47057565\_ 47057754\_ 47053235\_ 47053423\_ 47058201\_ 47058318\_0.0,0.05 | 0.278 | Up | 0.00018665 | 0.014120113 |
| GNB1 | SE | ENSG00000078369\_GNB1\_1\_-\_ 1771067\_ 1771121\_ 1770628\_ 1770677\_ 1821802\_ 1821840\_0.0,0.194 | 0.534 | Up | 0.00018906 | 0.014201166 |
| FAM222B | SE | ENSG00000173065\_FAM222B\_17\_-\_ 27161310\_ 27161344\_ 27117395\_ 27117443\_ 27169699\_ 27169808\_0.707,0.211 | 0.474 | Up | 0.00019021 | 0.014225002 |
| DNAH14 | SE | ENSG00000185842\_DNAH14\_1\_+\_225465111\_225465204\_225463615\_225463783\_225477586\_225477784\_1.0,0.545 | -0.772 | Down | 0.0001939 | 0.014465433 |
| MKL1 | SE | ENSG00000196588\_MKL1\_22\_-\_ 40990677\_ 40990739\_ 40948109\_ 40948371\_ 41032481\_ 41032695\_1.0,1.0 | -0.27 | Down | 0.00020153 | 0.014859954 |
| AASS | SE | ENSG00000008311\_AASS\_7\_-\_121722841\_121722945\_121721553\_121721649\_121726065\_121726233\_0.0,0.0 | 0.262 | Up | 0.00020372 | 0.014941607 |
| SPOP | SE | ENSG00000121067\_SPOP\_17\_-\_ 47714120\_ 47714171\_ 47700094\_ 47700238\_ 47745388\_ 47745440\_1.0,0.814 | -0.426 | Down | 0.00020367 | 0.014941607 |
| SLC9A8 | SE | ENSG00000197818\_SLC9A8\_20\_+\_ 48467298\_ 48467381\_ 48466115\_ 48466217\_ 48471974\_ 48472118\_0.238,0.294 | 0.512 | Up | 0.00020959 | 0.015261616 |
| IL15RA | SE | ENSG00000134470\_IL15RA\_10\_-\_ 6005705\_ 6005801\_ 6002357\_ 6002530\_ 6008107\_ 6008302\_0.0,0.0 | 0.268 | Up | 0.00021061 | 0.015299457 |
| PPP6R3 | SE | ENSG00000110075\_PPP6R3\_11\_+\_ 68326033\_ 68326147\_ 68315534\_ 68315672\_ 68334481\_ 68334634\_1.0,0.687 | -0.564 | Down | 0.00021505 | 0.015392454 |
| ATXN3 | SE | ENSG00000066427\_ATXN3\_14\_-\_ 92560089\_ 92560194\_ 92559595\_ 92559662\_ 92562436\_ 92562481\_1.0,0.872 | -0.265 | Down | 0.00021467 | 0.015392454 |
| MLPH | SE | ENSG00000115648\_MLPH\_2\_+\_238428552\_238428672\_238427181\_238427291\_238434243\_238434448\_1.0,1.0 | -0.226 | Down | 0.000215 | 0.015392454 |
| MKNK1 | SE | ENSG00000079277\_MKNK1\_1\_-\_ 47025905\_ 47025949\_ 47023090\_ 47024472\_ 47027149\_ 47027314\_0.0,0.202 | 0.423 | Up | 0.00021304 | 0.015392454 |
| CMC2 | SE | ENSG00000103121\_CMC2\_16\_-\_ 81014374\_ 81014484\_ 81009698\_ 81010076\_ 81040338\_ 81040500\_0.295,0.87 | 0.417 | Up | 0.00021912 | 0.015413511 |
| BOK | SE | ENSG00000176720\_BOK\_2\_+\_242498869\_242499118\_242498135\_242498408\_242501762\_242501891\_0.798,1.0 | -0.254 | Down | 0.00022108 | 0.015413511 |
| FAAH2 | SE | ENSG00000165591\_FAAH2\_X\_+\_ 57458350\_ 57458470\_ 57407344\_ 57407462\_ 57473360\_ 57473472\_1.0,1.0 | -0.299 | Down | 0.00022026 | 0.015413511 |
| ATG2A | SE | ENSG00000110046\_ATG2A\_11\_-\_ 64669987\_ 64670152\_ 64669731\_ 64669858\_ 64670759\_ 64670836\_1.0,1.0 | -0.336 | Down | 0.00022041 | 0.015413511 |
| PAM | SE | ENSG00000145730\_PAM\_5\_+\_102360837\_102361038\_102355493\_102355547\_102363885\_102363942\_0.45,0.235 | 0.55 | Up | 0.00021791 | 0.015413511 |
| RTFDC1 | SE | ENSG00000022277\_RTFDC1\_20\_+\_ 55045655\_ 55045997\_ 55043713\_ 55043822\_ 55046669\_ 55046725\_1.0,1.0 | -0.456 | Down | 0.00022472 | 0.015421316 |
| UBXN8 | SE | ENSG00000104691\_UBXN8\_8\_+\_ 30609023\_ 30609035\_ 30601706\_ 30601794\_ 30610551\_ 30610622\_1.0,1.0 | -0.298 | Down | 0.00022495 | 0.015421316 |
| ACSL1 | SE | ENSG00000151726\_ACSL1\_4\_-\_185691408\_185691486\_185689469\_185689604\_185694234\_185694308\_1.0,1.0 | -0.208 | Down | 0.00022692 | 0.015486536 |
| TRAPPC6A | SE | ENSG00000007255\_TRAPPC6A\_19\_-\_ 45668384\_ 45668452\_ 45668110\_ 45668228\_ 45681392\_ 45681495\_0.555,0.383 | 0.332 | Up | 0.00023017 | 0.01563822 |
| MPDU1 | SE | ENSG00000129255\_MPDU1\_17\_+\_ 7489268\_ 7489396\_ 7487166\_ 7487283\_ 7489973\_ 7490095\_1.0,1.0 | -0.22 | Down | 0.00023091 | 0.015653376 |
| MPDU1 | SE | ENSG00000129255\_MPDU1\_17\_+\_ 7489263\_ 7489396\_ 7487169\_ 7487283\_ 7489973\_ 7490095\_1.0,1.0 | -0.206 | Down | 0.00023261 | 0.015725278 |
| LA16c-431H6.6 | SE | ENSG00000261732\_LA16c-431H6.6\_16\_+\_ 1716073\_ 1716178\_ 1715057\_ 1715139\_ 1716422\_ 1716601\_0.758,0.752 | -0.436 | Down | 0.00023534 | 0.015777944 |
| UBE2F | SE | ENSG00000184182\_UBE2F\_2\_+\_238903385\_238903451\_238881736\_238881867\_238933982\_238934053\_0.0,0.576 | 0.712 | Up | 0.00023514 | 0.015777944 |
| ZIK1 | SE | ENSG00000171649\_ZIK1\_19\_+\_ 58096319\_ 58096358\_ 58095512\_ 58095980\_ 58099906\_ 58100033\_0.0,0.0 | 0.326 | Up | 0.00023605 | 0.015791047 |
| MIB2 | SE | ENSG00000197530\_MIB2\_1\_+\_ 1560937\_ 1561033\_ 1560665\_ 1560808\_ 1562029\_ 1562134\_1.0,0.939 | -0.207 | Down | 0.00023757 | 0.015798046 |
| ARHGAP44 | SE | ENSG00000006740\_ARHGAP44\_17\_+\_ 12877405\_ 12877627\_ 12862033\_ 12862214\_ 12883374\_ 12883550\_1.0,1.0 | -0.48 | Down | 0.00023935 | 0.015868014 |
| COL4A5 | SE | ENSG00000188153\_COL4A5\_X\_+\_107816803\_107816884\_107815040\_107815067\_107819139\_107819202\_1.0,1.0 | -0.211 | Down | 0.00024658 | 0.016280436 |
| ATG2A | SE | ENSG00000110046\_ATG2A\_11\_-\_ 64669981\_ 64670152\_ 64669731\_ 64669858\_ 64670759\_ 64670836\_1.0,1.0 | -0.333 | Down | 0.0002495 | 0.01643767 |
| AFMID | SE | ENSG00000183077\_AFMID\_17\_+\_ 76201683\_ 76201819\_ 76201520\_ 76201599\_ 76202026\_ 76202131\_1.0,0.858 | -0.491 | Down | 0.00025093 | 0.016496325 |
| ZNF586 | SE | ENSG00000083828\_ZNF586\_19\_+\_ 58287910\_ 58288037\_ 58281037\_ 58281246\_ 58290118\_ 58291945\_0.526,0.676 | 0.314 | Up | 0.00026167 | 0.016946201 |
| RHBDD1 | SE | ENSG00000144468\_RHBDD1\_2\_+\_227702788\_227702870\_227700670\_227700803\_227729319\_227729781\_0.677,1.0 | -0.665 | Down | 0.00027279 | 0.017480226 |
| BCL2L12 | SE | ENSG00000126453\_BCL2L12\_19\_+\_ 50172107\_ 50172194\_ 50169941\_ 50170056\_ 50176954\_ 50177173\_1.0,1.0 | -0.506 | Down | 0.00027463 | 0.017481878 |
| LIMK2 | SE | ENSG00000182541\_LIMK2\_22\_+\_ 31621705\_ 31621805\_ 31608280\_ 31608410\_ 31654276\_ 31654412\_0.777,0.425 | 0.315 | Up | 0.0002751 | 0.017481878 |
| DSN1 | SE | ENSG00000149636\_DSN1\_20\_-\_ 35399275\_ 35399380\_ 35396371\_ 35396445\_ 35399827\_ 35399876\_0.881,1.0 | -0.201 | Down | 0.00028546 | 0.018026422 |
| TRAF3 | SE | ENSG00000131323\_TRAF3\_14\_+\_103357661\_103357754\_103342694\_103342862\_103363597\_103363738\_1.0,1.0 | -0.208 | Down | 0.00029457 | 0.018486887 |
| STAU1 | SE | ENSG00000124214\_STAU1\_20\_-\_ 47774973\_ 47775034\_ 47770469\_ 47770608\_ 47775475\_ 47775683\_0.41,0.0 | 0.795 | Up | 0.00029693 | 0.018558129 |
| ASPM | SE | ENSG00000066279\_ASPM\_1\_-\_197069560\_197074315\_197065127\_197065294\_197086918\_197087113\_0.691,0.605 | 0.238 | Up | 0.00030034 | 0.01869497 |
| CTC1 | SE | ENSG00000178971\_CTC1\_17\_-\_ 8139148\_ 8139277\_ 8138370\_ 8138603\_ 8139375\_ 8139660\_0.862,0.548 | 0.258 | Up | 0.00030247 | 0.018788729 |
| PVR | SE | ENSG00000073008\_PVR\_19\_+\_ 45162009\_ 45162168\_ 45161029\_ 45161178\_ 45164558\_ 45164590\_0.766,1.0 | -0.208 | Down | 0.00030321 | 0.018796783 |
| PLA2G7 | SE | ENSG00000146070\_PLA2G7\_6\_-\_ 46677063\_ 46677155\_ 46675727\_ 46675898\_ 46678281\_ 46678395\_1.0,1.0 | -0.22 | Down | 0.00030415 | 0.018816374 |
| PTPN4 | SE | ENSG00000088179\_PTPN4\_2\_+\_120677644\_120677817\_120672754\_120672818\_120689999\_120690125\_1.0,1.0 | -0.223 | Down | 0.00030661 | 0.018930284 |
| DPH7 | SE | ENSG00000148399\_DPH7\_9\_-\_140470760\_140470854\_140470531\_140470619\_140471921\_140472055\_1.0,1.0 | -0.347 | Down | 0.00031741 | 0.019412536 |
| PORCN | SE | ENSG00000102312\_PORCN\_X\_+\_ 48367811\_ 48367965\_ 48367417\_ 48367491\_ 48368171\_ 48368344\_1.0,1.0 | -0.511 | Down | 0.00031761 | 0.019412536 |
| ILF3 | SE | ENSG00000129351\_ILF3\_19\_+\_ 10795091\_ 10795152\_ 10794592\_ 10794646\_ 10798021\_ 10798384\_0.958,0.842 | -0.227 | Down | 0.00032259 | 0.01967734 |
| UNC119 | SE | ENSG00000109103\_UNC119\_17\_-\_ 26875609\_ 26875723\_ 26873725\_ 26874867\_ 26879355\_ 26879686\_1.0,1.0 | -0.248 | Down | 0.00032367 | 0.019703701 |
| STAP2 | SE | ENSG00000178078\_STAP2\_19\_-\_ 4328671\_ 4328806\_ 4327312\_ 4327382\_ 4329957\_ 4330058\_0.893,0.794 | -0.228 | Down | 0.00032993 | 0.019965194 |
| ANKS6 | SE | ENSG00000165138\_ANKS6\_9\_-\_101552385\_101552888\_101547113\_101547158\_101558414\_101558821\_0.752,1.0 | -0.342 | Down | 0.00033248 | 0.019980278 |
| SAC3D1 | SE | ENSG00000168061\_SAC3D1\_11\_+\_ 64810496\_ 64810636\_ 64808412\_ 64808578\_ 64811696\_ 64812300\_1.0,1.0 | -0.21 | Down | 0.00033217 | 0.019980278 |
| PAQR3 | SE | ENSG00000163291\_PAQR3\_4\_-\_ 79843294\_ 79843575\_ 79839093\_ 79841835\_ 79843982\_ 79844137\_0.249,0.398 | 0.676 | Up | 0.00033666 | 0.020092867 |
| BAZ2B | SE | ENSG00000123636\_BAZ2B\_2\_-\_160287373\_160287667\_160285710\_160285771\_160289267\_160292064\_1.0,1.0 | -0.253 | Down | 0.00034329 | 0.020448112 |
| ZNF83 | SE | ENSG00000167766\_ZNF83\_19\_-\_ 53177434\_ 53177506\_ 53164014\_ 53164096\_ 53193695\_ 53193749\_0.725,0.116 | -0.42 | Down | 0.00035528 | 0.020998114 |
| BAD | SE | ENSG00000002330\_BAD\_11\_-\_ 64044375\_ 64044515\_ 64039084\_ 64039275\_ 64051653\_ 64051848\_0.262,0.374 | -0.285 | Down | 0.00035887 | 0.021169057 |
| MYO9A | SE | ENSG00000066933\_MYO9A\_15\_-\_ 72244117\_ 72244237\_ 72231192\_ 72231268\_ 72252241\_ 72252296\_0.3,0.392 | 0.478 | Up | 0.00036226 | 0.021204971 |
| ZHX3 | SE | ENSG00000174306\_ZHX3\_20\_-\_ 39896102\_ 39896252\_ 39868237\_ 39868344\_ 39897629\_ 39897723\_1.0,1.0 | -0.245 | Down | 0.00036036 | 0.021204971 |
| WIBG | SE | ENSG00000170473\_WIBG\_12\_-\_ 56308059\_ 56308150\_ 56297170\_ 56297264\_ 56320859\_ 56320895\_1.0,0.547 | -0.5 | Down | 0.00037007 | 0.021537541 |
| YAF2 | SE | ENSG00000015153\_YAF2\_12\_-\_ 42604156\_ 42604256\_ 42555429\_ 42555567\_ 42604349\_ 42604482\_0.84,1.0 | -0.511 | Down | 0.00037493 | 0.02173745 |
| PARD3 | SE | ENSG00000148498\_PARD3\_10\_-\_ 34625126\_ 34625171\_ 34620044\_ 34620272\_ 34626202\_ 34626354\_1.0,1.0 | -0.5 | Down | 0.0003804 | 0.021894974 |
| ARNTL2 | SE | ENSG00000029153\_ARNTL2\_12\_+\_ 27529278\_ 27529320\_ 27523061\_ 27523163\_ 27533179\_ 27533337\_0.204,0.0 | 0.464 | Up | 0.00038504 | 0.022030056 |
| GOSR2 | SE | ENSG00000108433\_GOSR2\_17\_+\_ 45008467\_ 45008573\_ 45006885\_ 45006950\_ 45009432\_ 45009565\_0.694,0.586 | 0.265 | Up | 0.0003874 | 0.022040598 |
| LIN7A | SE | ENSG00000111052\_LIN7A\_12\_-\_ 81283029\_ 81283148\_ 81242029\_ 81242101\_ 81331419\_ 81331483\_1.0,0.59 | 0.205 | Up | 0.00038859 | 0.022066721 |
| SERTAD3 | SE | ENSG00000167565\_SERTAD3\_19\_-\_ 40948229\_ 40948422\_ 40947712\_ 40947993\_ 40950121\_ 40950182\_0.065,0.0 | 0.211 | Up | 0.0003971 | 0.022466554 |
| SRFBP1 | SE | ENSG00000151304\_SRFBP1\_5\_+\_121358064\_121358102\_121330293\_121330365\_121362636\_121364314\_1.0,0.519 | 0.24 | Up | 0.00039875 | 0.022471114 |
| TRIM16 | SE | ENSG00000221926\_TRIM16\_17\_-\_ 15586167\_ 15586278\_ 15584178\_ 15584267\_ 15586349\_ 15586471\_1.0,1.0 | -0.424 | Down | 0.00040389 | 0.022532961 |
| ERBB2IP | SE | ENSG00000112851\_ERBB2IP\_5\_+\_ 65364704\_ 65364848\_ 65349233\_ 65350779\_ 65367996\_ 65368122\_1.0,0.663 | -0.569 | Down | 0.00040285 | 0.022532961 |
| LPXN | SE | ENSG00000110031\_LPXN\_11\_-\_ 58331627\_ 58331674\_ 58322313\_ 58322413\_ 58338028\_ 58338186\_0.9,1.0 | -0.276 | Down | 0.00040868 | 0.022699599 |
| PDCD2L | SE | ENSG00000126249\_PDCD2L\_19\_+\_ 34895553\_ 34895895\_ 34895329\_ 34895443\_ 34900065\_ 34900415\_0.514,1.0 | 0.243 | Up | 0.00041114 | 0.022719953 |
| ESPL1 | SE | ENSG00000135476\_ESPL1\_12\_+\_ 53682321\_ 53682483\_ 53681755\_ 53682125\_ 53682873\_ 53683087\_1.0,1.0 | -0.204 | Down | 0.00041129 | 0.022719953 |
| SOS2 | SE | ENSG00000100485\_SOS2\_14\_-\_ 50682091\_ 50682150\_ 50671001\_ 50671127\_ 50697914\_ 50698080\_0.0,0.0 | 0.352 | Up | 0.00041721 | 0.023005634 |
| BCL6 | SE | ENSG00000113916\_BCL6\_3\_-\_187444518\_187444686\_187443286\_187443417\_187446147\_187446332\_1.0,1.0 | -0.209 | Down | 0.00044263 | 0.023912544 |
| FUK | SE | ENSG00000157353\_FUK\_16\_+\_ 70500784\_ 70501374\_ 70500034\_ 70500160\_ 70502751\_ 70502871\_0.433,0.276 | 0.645 | Up | 0.00044547 | 0.023957921 |
| C1orf86 | SE | ENSG00000162585\_C1orf86\_1\_-\_ 2118276\_ 2118645\_ 2115916\_ 2116952\_ 2125077\_ 2125349\_1.0,0.732 | -0.509 | Down | 0.00046911 | 0.024744426 |
| MAPT | SE | ENSG00000186868\_MAPT\_17\_+\_ 44049224\_ 44049311\_ 44039686\_ 44039836\_ 44055740\_ 44055806\_1.0,1.0 | -0.3 | Down | 0.00047356 | 0.024809393 |
| SYNE4 | SE | ENSG00000181392\_SYNE4\_19\_-\_ 36498026\_ 36498170\_ 36496234\_ 36496339\_ 36499118\_ 36499269\_0.396,0.228 | 0.567 | Up | 0.00047352 | 0.024809393 |
| BIN1 | SE | ENSG00000136717\_BIN1\_2\_-\_127808729\_127808819\_127808377\_127808488\_127815048\_127815177\_0.845,1.0 | -0.251 | Down | 0.00047978 | 0.025092201 |
| TSGA10 | SE | ENSG00000135951\_TSGA10\_2\_-\_ 99735013\_ 99735149\_ 99734029\_ 99734222\_ 99743510\_ 99743639\_0.0,0.164 | 0.214 | Up | 0.00048601 | 0.025244438 |
| PGAP2 | SE | ENSG00000148985\_PGAP2\_11\_+\_ 3844842\_ 3844970\_ 3829523\_ 3829545\_ 3845112\_ 3845587\_1.0,1.0 | -0.324 | Down | 0.00048544 | 0.025244438 |
| RAB8B | SE | ENSG00000166128\_RAB8B\_15\_+\_ 63516046\_ 63516178\_ 63515240\_ 63515272\_ 63536954\_ 63537015\_0.435,0.461 | 0.411 | Up | 0.00048499 | 0.025244438 |
| BLOC1S6 | SE | ENSG00000104164\_BLOC1S6\_15\_+\_ 45893431\_ 45893605\_ 45884332\_ 45884474\_ 45897625\_ 45897712\_1.0,1.0 | -0.238 | Down | 0.00049471 | 0.025384594 |
| LRP5 | SE | ENSG00000162337\_LRP5\_11\_+\_ 68213040\_ 68213154\_ 68207340\_ 68207384\_ 68213903\_ 68214001\_0.048,0.0 | 0.251 | Up | 0.00049403 | 0.025384594 |
| ENOX2 | SE | ENSG00000165675\_ENOX2\_X\_-\_129917520\_129917664\_129843216\_129843305\_130035657\_130035705\_0.663,0.88 | 0.228 | Up | 0.00051209 | 0.026065336 |
| ZNF397 | SE | ENSG00000186812\_ZNF397\_18\_+\_ 32825225\_ 32825315\_ 32823115\_ 32823257\_ 32834195\_ 32834366\_0.378,0.378 | 0.396 | Up | 0.0005136 | 0.026098404 |
| SLC35B3 | SE | ENSG00000124786\_SLC35B3\_6\_-\_ 8417634\_ 8417727\_ 8417116\_ 8417228\_ 8420953\_ 8421061\_1.0,1.0 | -0.219 | Down | 0.00051859 | 0.026119786 |
| PCCA | SE | ENSG00000175198\_PCCA\_13\_+\_101167680\_101167821\_101101505\_101101559\_101179928\_101180006\_1.0,1.0 | -0.22 | Down | 0.0005266 | 0.026276246 |
| TMEM206 | SE | ENSG00000065600\_TMEM206\_1\_-\_212550903\_212551048\_212537823\_212538718\_212553236\_212553379\_1.0,1.0 | -0.218 | Down | 0.00053302 | 0.026509961 |
| MTL5 | SE | ENSG00000132749\_MTL5\_11\_-\_ 68512458\_ 68512579\_ 68509785\_ 68509862\_ 68514675\_ 68514834\_1.0,0.933 | -0.209 | Down | 0.00054649 | 0.02692269 |
| CMC2 | SE | ENSG00000103121\_CMC2\_16\_-\_ 81015410\_ 81015482\_ 81009697\_ 81010076\_ 81040338\_ 81040502\_0.644,0.888 | 0.234 | Up | 0.00054999 | 0.027000961 |
| SNX10 | SE | ENSG00000086300\_SNX10\_7\_+\_ 26393676\_ 26393804\_ 26386039\_ 26386086\_ 26396626\_ 26396747\_0.342,0.0 | 0.679 | Up | 0.00055264 | 0.027014163 |
| PLCB4 | SE | ENSG00000101333\_PLCB4\_20\_+\_ 9457363\_ 9457400\_ 9453925\_ 9454012\_ 9459567\_ 9461889\_1.0,1.0 | -0.217 | Down | 0.00055427 | 0.027014163 |
| PIP5K1C | SE | ENSG00000186111\_PIP5K1C\_19\_-\_ 3633434\_ 3633518\_ 3630180\_ 3633167\_ 3638881\_ 3639014\_0.294,0.257 | -0.243 | Down | 0.00056058 | 0.027256868 |
| C19orf60 | SE | ENSG00000006015\_C19orf60\_19\_+\_ 18700222\_ 18700493\_ 18699804\_ 18699887\_ 18702917\_ 18703146\_1.0,1.0 | -0.228 | Down | 0.00056518 | 0.027437058 |
| PLEKHN1 | SE | ENSG00000187583\_PLEKHN1\_1\_+\_ 908565\_ 908706\_ 908240\_ 908390\_ 908879\_ 909020\_1.0,1.0 | -0.286 | Down | 0.00056915 | 0.027562587 |
| PDCD2L | SE | ENSG00000126249\_PDCD2L\_19\_+\_ 34895553\_ 34895720\_ 34895288\_ 34895443\_ 34900065\_ 34900415\_0.454,1.0 | 0.273 | Up | 0.00057617 | 0.027749389 |
| TMEM175 | SE | ENSG00000127419\_TMEM175\_4\_+\_ 941496\_ 941680\_ 926248\_ 926328\_ 944208\_ 944306\_0.418,0.601 | 0.4 | Up | 0.00058677 | 0.028092469 |
| LPP | SE | ENSG00000145012\_LPP\_3\_+\_187943192\_187943315\_187871718\_187871809\_188123899\_188124101\_0.469,0.761 | 0.342 | Up | 0.00058699 | 0.028092469 |
| DCAF8 | SE | ENSG00000132716\_DCAF8\_1\_-\_160231074\_160231148\_160213749\_160213824\_160231906\_160232241\_0.878,0.825 | -0.205 | Down | 0.00058838 | 0.028114847 |
| STK19 | SE | ENSG00000204344\_STK19\_6\_+\_ 31940397\_ 31940534\_ 31940078\_ 31940288\_ 31946679\_ 31946775\_1.0,1.0 | -0.228 | Down | 0.00059907 | 0.028402433 |
| ATG9A | SE | ENSG00000198925\_ATG9A\_2\_-\_220093155\_220093204\_220092643\_220092775\_220093731\_220094047\_0.425,0.663 | 0.405 | Up | 0.00060424 | 0.028514443 |
| UBR1 | SE | ENSG00000159459\_UBR1\_15\_-\_ 43339358\_ 43339487\_ 43335411\_ 43335593\_ 43346939\_ 43347097\_0.757,1.0 | -0.289 | Down | 0.0006196 | 0.028930808 |
| MRPL22 | SE | ENSG00000082515\_MRPL22\_5\_+\_154330362\_154330498\_154320776\_154320825\_154335930\_154335996\_1.0,0.901 | -0.205 | Down | 0.00063595 | 0.029373205 |
| PAM | SE | ENSG00000145730\_PAM\_5\_+\_102360834\_102361038\_102355493\_102355547\_102363885\_102363942\_0.739,0.527 | 0.321 | Up | 0.00066099 | 0.030118626 |
| BIRC5 | SE | ENSG00000089685\_BIRC5\_17\_+\_ 76212046\_ 76212862\_ 76210760\_ 76210870\_ 76218908\_ 76219060\_1.0,1.0 | -0.365 | Down | 0.00067874 | 0.03078911 |
| HELB | SE | ENSG00000127311\_HELB\_12\_+\_ 66707765\_ 66707943\_ 66703485\_ 66704388\_ 66709021\_ 66709163\_0.305,1.0 | 0.348 | Up | 0.00071002 | 0.032017299 |
| GOPC | SE | ENSG00000047932\_GOPC\_6\_-\_117892022\_117892118\_117888016\_117888197\_117894629\_117894795\_1.0,1.0 | -0.202 | Down | 0.00071232 | 0.032029787 |
| CBR3-AS1 | SE | ENSG00000236830\_CBR3-AS1\_21\_-\_ 37518553\_ 37518653\_ 37504064\_ 37505372\_ 37528514\_ 37528615\_1.0,1.0 | -0.242 | Down | 0.00071701 | 0.032141841 |
| PGAP3 | SE | ENSG00000161395\_PGAP3\_17\_-\_ 37840849\_ 37841002\_ 37830869\_ 37830932\_ 37842174\_ 37842272\_1.0,0.588 | 0.206 | Up | 0.00071927 | 0.032195789 |
| ATP2C1 | SE | ENSG00000017260\_ATP2C1\_3\_+\_130613574\_130613619\_130613025\_130613181\_130649259\_130649370\_0.751,1.0 | -0.254 | Down | 0.00074016 | 0.032889205 |
| CDC14B | SE | ENSG00000081377\_CDC14B\_9\_-\_ 99277930\_ 99278074\_ 99265846\_ 99266071\_ 99284787\_ 99284885\_1.0,1.0 | -0.289 | Down | 0.00074787 | 0.033143265 |
| SYNE4 | SE | ENSG00000181392\_SYNE4\_19\_-\_ 36497651\_ 36497846\_ 36496234\_ 36496339\_ 36499118\_ 36499269\_0.0,0.294 | 0.674 | Up | 0.00074806 | 0.033143265 |
| C14orf159 | SE | ENSG00000133943\_C14orf159\_14\_+\_ 91636346\_ 91636530\_ 91633568\_ 91633722\_ 91639632\_ 91639783\_1.0,1.0 | -0.5 | Down | 0.00076281 | 0.033434632 |
| SEMA4D | SE | ENSG00000187764\_SEMA4D\_9\_-\_ 91996088\_ 91996261\_ 91995969\_ 91996013\_ 92001281\_ 92001397\_1.0,1.0 | -0.234 | Down | 0.00079781 | 0.03464141 |
| RUFY2 | SE | ENSG00000204130\_RUFY2\_10\_-\_ 70140988\_ 70141156\_ 70139180\_ 70139278\_ 70143554\_ 70143671\_1.0,0.941 | -0.209 | Down | 0.00081924 | 0.035071797 |
| UBE2V1 | SE | ENSG00000244687\_UBE2V1\_20\_-\_ 48732021\_ 48732158\_ 48713208\_ 48713357\_ 48732235\_ 48732491\_1.0,1.0 | -0.214 | Down | 0.00082326 | 0.035194353 |
| PPT2 | SE | ENSG00000221988\_PPT2\_6\_+\_ 32122806\_ 32122960\_ 32122363\_ 32122554\_ 32123464\_ 32123560\_1.0,1.0 | -0.275 | Down | 0.0008343 | 0.035221019 |
| GLS | SE | ENSG00000115419\_GLS\_2\_+\_191819309\_191819386\_191818290\_191818352\_191827555\_191827896\_0.659,0.563 | 0.389 | Up | 0.00082632 | 0.035221019 |
| MOK | SE | ENSG00000080823\_MOK\_14\_-\_102732159\_102732249\_102729882\_102729953\_102749814\_102749929\_1.0,0.87 | -0.215 | Down | 0.00082731 | 0.035221019 |
| C5orf38 | SE | ENSG00000186493\_C5orf38\_5\_+\_ 2753398\_ 2753469\_ 2752793\_ 2752868\_ 2755142\_ 2755195\_0.665,1.0 | -0.296 | Down | 0.00084923 | 0.035653598 |
| AGBL5 | SE | ENSG00000084693\_AGBL5\_2\_+\_ 27291915\_ 27291962\_ 27291499\_ 27291612\_ 27292440\_ 27292574\_1.0,0.529 | -0.628 | Down | 0.00086003 | 0.035859749 |
| CLTCL1 | SE | ENSG00000070371\_CLTCL1\_22\_-\_ 19175069\_ 19175240\_ 19170902\_ 19171124\_ 19175492\_ 19175603\_1.0,0.0 | 0.5 | Up | 0.00086253 | 0.035878889 |
| CARF | SE | ENSG00000138380\_CARF\_2\_+\_203839056\_203839219\_203836227\_203836461\_203841991\_203842055\_1.0,1.0 | -0.326 | Down | 0.00086285 | 0.035878889 |
| ANAPC10 | SE | ENSG00000164162\_ANAPC10\_4\_-\_145985723\_145985844\_145916607\_145916755\_146002811\_146002902\_0.762,0.608 | 0.231 | Up | 0.00088773 | 0.036712952 |
| PTK2 | SE | ENSG00000169398\_PTK2\_8\_-\_141935759\_141935848\_141900641\_141900868\_142011223\_142011257\_0.119,0.224 | 0.233 | Up | 0.00089051 | 0.036728206 |
| FGFR2 | SE | ENSG00000066468\_FGFR2\_10\_-\_123278195\_123278343\_123276847\_123276977\_123279492\_123279683\_0.0,0.195 | 0.394 | Up | 0.00089853 | 0.036865658 |
| SMAP1 | SE | ENSG00000112305\_SMAP1\_6\_+\_ 71508359\_ 71508440\_ 71483052\_ 71483128\_ 71546643\_ 71546731\_1.0,0.596 | 0.202 | Up | 0.00092701 | 0.037471894 |
| FAM193B | SE | ENSG00000146067\_FAM193B\_5\_-\_176958282\_176958522\_176951185\_176952206\_176959443\_176959534\_1.0,1.0 | -0.278 | Down | 0.00094024 | 0.037855662 |
| ZNF530 | SE | ENSG00000183647\_ZNF530\_19\_+\_ 58117053\_ 58119195\_ 58115644\_ 58115774\_ 58123870\_ 58124090\_0.401,1.0 | 0.299 | Up | 0.00093962 | 0.037855662 |
| N4BP2L2 | SE | ENSG00000244754\_N4BP2L2\_13\_-\_ 33052023\_ 33052185\_ 33016524\_ 33018263\_ 33054726\_ 33054774\_1.0,0.0 | 0.5 | Up | 0.00094207 | 0.03787939 |
| PTBP2 | SE | ENSG00000117569\_PTBP2\_1\_+\_ 97271974\_ 97272008\_ 97270340\_ 97270495\_ 97272421\_ 97272514\_0.898,1.0 | -0.548 | Down | 0.00094393 | 0.037904239 |
| RBM33 | SE | ENSG00000184863\_RBM33\_7\_+\_155556502\_155556712\_155537654\_155538296\_155559160\_155559250\_1.0,1.0 | -0.204 | Down | 0.00094778 | 0.037908684 |
| MACROD1 | SE | ENSG00000133315\_MACROD1\_11\_-\_ 63766309\_ 63766344\_ 63766031\_ 63766159\_ 63766426\_ 63766694\_0.762,1.0 | -0.268 | Down | 0.00095889 | 0.038152371 |
| TIRAP | SE | ENSG00000150455\_TIRAP\_11\_+\_126161319\_126161464\_126160697\_126160856\_126162371\_126162582\_0.395,0.355 | -0.265 | Down | 0.00096147 | 0.038155592 |
| SRSF11 | SE | ENSG00000116754\_SRSF11\_1\_+\_ 70696239\_ 70696301\_ 70694104\_ 70694238\_ 70696777\_ 70697253\_0.708,0.717 | -0.403 | Down | 0.00097089 | 0.038230055 |
| GRK5 | SE | ENSG00000198873\_GRK5\_10\_+\_121201510\_121201600\_121199242\_121199280\_121203055\_121203264\_1.0,1.0 | -0.262 | Down | 0.00096795 | 0.038230055 |
| CENPE | SE | ENSG00000138778\_CENPE\_4\_-\_104060945\_104061236\_104059507\_104059606\_104061412\_104061571\_1.0,1.0 | -0.35 | Down | 0.00097459 | 0.038326461 |
| KCNAB2 | SE | ENSG00000069424\_KCNAB2\_1\_+\_ 6101890\_ 6101932\_ 6100576\_ 6100705\_ 6132814\_ 6132858\_0.434,0.184 | 0.372 | Up | 0.00097809 | 0.038414457 |
| ATG9A | SE | ENSG00000198925\_ATG9A\_2\_-\_220093155\_220093207\_220092643\_220092775\_220093731\_220094062\_0.522,0.773 | 0.328 | Up | 0.00098663 | 0.038666886 |
| WDR27 | SE | ENSG00000184465\_WDR27\_6\_-\_170089222\_170089404\_170088912\_170089108\_170101646\_170102144\_0.796,1.0 | -0.386 | Down | 0.00100093 | 0.039009472 |
| RAB28 | SE | ENSG00000157869\_RAB28\_4\_-\_ 13371494\_ 13371589\_ 13369347\_ 13370274\_ 13378168\_ 13378246\_0.123,0.073 | 0.237 | Up | 0.00099981 | 0.039009472 |
| TEP1 | SE | ENSG00000129566\_TEP1\_14\_-\_ 20874391\_ 20874559\_ 20873609\_ 20873744\_ 20876031\_ 20876622\_1.0,1.0 | -0.273 | Down | 0.0010085 | 0.039203944 |
| C11orf54 | SE | ENSG00000182919\_C11orf54\_11\_+\_ 93475128\_ 93475260\_ 93474853\_ 93474894\_ 93480467\_ 93480614\_0.506,0.0 | 0.416 | Up | 0.0010112 | 0.039258699 |
| OSBPL6 | SE | ENSG00000079156\_OSBPL6\_2\_+\_179188903\_179188996\_179170756\_179171013\_179192982\_179193105\_1.0,0.906 | -0.301 | Down | 0.00101336 | 0.039292706 |
| CNOT2 | SE | ENSG00000111596\_CNOT2\_12\_+\_ 70726546\_ 70726626\_ 70713077\_ 70713144\_ 70729217\_ 70729343\_0.745,0.846 | -0.265 | Down | 0.0010155 | 0.039325587 |
| KLHDC9 | SE | ENSG00000162755\_KLHDC9\_1\_+\_161069387\_161069586\_161068455\_161068852\_161069850\_161070133\_0.832,0.759 | 0.205 | Up | 0.00102015 | 0.039405163 |
| AFMID | SE | ENSG00000183077\_AFMID\_17\_+\_ 76201683\_ 76201834\_ 76201520\_ 76201599\_ 76202026\_ 76202131\_1.0,0.657 | -0.422 | Down | 0.00103436 | 0.039801927 |
| SSBP2 | SE | ENSG00000145687\_SSBP2\_5\_-\_ 80724403\_ 80724502\_ 80716106\_ 80716352\_ 80733248\_ 80733649\_0.559,1.0 | 0.22 | Up | 0.00105318 | 0.040221859 |
| NT5DC3 | SE | ENSG00000111696\_NT5DC3\_12\_-\_104179348\_104179525\_104179112\_104179253\_104181218\_104181305\_0.423,0.18 | -0.266 | Down | 0.00105206 | 0.040221859 |
| STK19 | SE | ENSG00000204344\_STK19\_6\_+\_ 31940397\_ 31940696\_ 31940128\_ 31940288\_ 31946679\_ 31946775\_1.0,1.0 | -0.358 | Down | 0.00105205 | 0.040221859 |
| PEX7 | SE | ENSG00000112357\_PEX7\_6\_+\_137191027\_137191141\_137147456\_137147607\_137219279\_137219379\_0.524,0.216 | 0.63 | Up | 0.0010566 | 0.040301714 |
| PPP1R7 | SE | ENSG00000115685\_PPP1R7\_2\_+\_242089673\_242089962\_242089052\_242089123\_242092890\_242093019\_1.0,1.0 | -0.262 | Down | 0.00107757 | 0.040794732 |
| AP3S2 | SE | ENSG00000157823\_AP3S2\_15\_-\_ 90421496\_ 90421532\_ 90380846\_ 90380954\_ 90431752\_ 90431864\_0.284,0.166 | 0.497 | Up | 0.00109422 | 0.041146706 |
| MARCH7 | SE | ENSG00000136536\_MARCH7\_2\_+\_160572191\_160572277\_160569017\_160569172\_160585519\_160585686\_0.0,0.081 | 0.212 | Up | 0.00109669 | 0.041146706 |
| ABHD6 | SE | ENSG00000163686\_ABHD6\_3\_+\_ 58235604\_ 58235669\_ 58223232\_ 58223643\_ 58242288\_ 58242432\_0.505,0.505 | 0.382 | Up | 0.00109724 | 0.041146706 |
| MRPS15 | SE | ENSG00000116898\_MRPS15\_1\_-\_ 36926864\_ 36926913\_ 36923523\_ 36923582\_ 36929406\_ 36929451\_0.597,1.0 | -0.451 | Down | 0.00113817 | 0.042067291 |
| RNF185 | SE | ENSG00000138942\_RNF185\_22\_+\_ 31591454\_ 31591567\_ 31588669\_ 31588688\_ 31592921\_ 31593143\_0.713,0.734 | 0.276 | Up | 0.00113497 | 0.042067291 |
| PNPLA8 | SE | ENSG00000135241\_PNPLA8\_7\_-\_108161919\_108161965\_108154879\_108156018\_108166472\_108166568\_1.0,0.762 | -0.485 | Down | 0.00114767 | 0.042291671 |
| RP11-480I12.5 | SE | ENSG00000214796\_RP11-480I12.5\_1\_-\_202828009\_202828230\_202820955\_202822408\_202830575\_202830736\_1.0,1.0 | -0.317 | Down | 0.00116945 | 0.042783258 |
| NUP214 | SE | ENSG00000126883\_NUP214\_9\_+\_134064439\_134064518\_134053697\_134053797\_134070619\_134070681\_0.489,0.389 | 0.561 | Up | 0.00117357 | 0.042814613 |
| CCDC148 | SE | ENSG00000153237\_CCDC148\_2\_-\_159196753\_159196905\_159195501\_159195597\_159197109\_159197192\_1.0,1.0 | -0.213 | Down | 0.00117453 | 0.042814613 |
| NME6 | SE | ENSG00000172113\_NME6\_3\_-\_ 48341920\_ 48342124\_ 48339916\_ 48340013\_ 48342768\_ 48342795\_1.0,1.0 | -0.5 | Down | 0.0011778 | 0.042831467 |
| MFGE8 | SE | ENSG00000140545\_MFGE8\_15\_-\_ 89442886\_ 89443042\_ 89441915\_ 89442763\_ 89444781\_ 89444966\_0.32,0.397 | 0.425 | Up | 0.00117695 | 0.042831467 |
| GOLIM4 | SE | ENSG00000173905\_GOLIM4\_3\_-\_167758573\_167758657\_167754623\_167754782\_167759179\_167759262\_0.802,0.734 | -0.228 | Down | 0.0011889 | 0.043108727 |
| MCTP1 | SE | ENSG00000175471\_MCTP1\_5\_-\_ 94253600\_ 94253678\_ 94248510\_ 94248681\_ 94259666\_ 94259726\_1.0,0.719 | -0.408 | Down | 0.00119881 | 0.043336704 |
| ALDOA | SE | ENSG00000149925\_ALDOA\_16\_+\_ 30066492\_ 30066648\_ 30064447\_ 30064820\_ 30075049\_ 30075569\_0.32,0.0 | 0.651 | Up | 0.00120235 | 0.043352453 |
| SERINC3 | SE | ENSG00000132824\_SERINC3\_20\_-\_ 43138531\_ 43138669\_ 43133441\_ 43133532\_ 43142519\_ 43142681\_1.0,1.0 | -0.5 | Down | 0.00120864 | 0.043416728 |
| PVR | SE | ENSG00000073008\_PVR\_19\_+\_ 45162009\_ 45162033\_ 45161029\_ 45161178\_ 45164558\_ 45164590\_0.46,1.0 | -0.238 | Down | 0.00122309 | 0.043538752 |
| TMCC1 | SE | ENSG00000172765\_TMCC1\_3\_-\_129551616\_129551669\_129390091\_129390107\_129599151\_129599309\_1.0,1.0 | -0.312 | Down | 0.00122664 | 0.04356661 |
| SLC29A1 | SE | ENSG00000112759\_SLC29A1\_6\_+\_ 44193709\_ 44193904\_ 44191350\_ 44191378\_ 44194999\_ 44195079\_0.529,0.375 | -0.236 | Down | 0.00123419 | 0.043732636 |
| NAA16 | SE | ENSG00000172766\_NAA16\_13\_+\_ 41936866\_ 41937009\_ 41936261\_ 41936295\_ 41941574\_ 41941788\_0.496,1.0 | -0.502 | Down | 0.00126358 | 0.044360691 |
| ARHGEF10 | SE | ENSG00000104728\_ARHGEF10\_8\_+\_ 1828213\_ 1828330\_ 1824736\_ 1824900\_ 1830800\_ 1830915\_0.449,0.0 | 0.461 | Up | 0.00127144 | 0.044533897 |
| RIMS1 | SE | ENSG00000079841\_RIMS1\_6\_+\_ 72975662\_ 72975752\_ 72974677\_ 72974755\_ 72993749\_ 72993821\_1.0,1.0 | -0.5 | Down | 0.00128664 | 0.044911576 |
| JADE2 | SE | ENSG00000043143\_JADE2\_5\_+\_133909334\_133909452\_133901805\_133902270\_133912457\_133912586\_0.448,0.748 | 0.402 | Up | 0.00132737 | 0.045755769 |
| AGR2 | SE | ENSG00000106541\_AGR2\_7\_-\_ 16851288\_ 16851379\_ 16841281\_ 16841427\_ 16872879\_ 16873057\_0.377,0.232 | 0.58 | Up | 0.00134193 | 0.045923128 |
| CD163L1 | SE | ENSG00000177675\_CD163L1\_12\_-\_ 7520682\_ 7520793\_ 7509975\_ 7510082\_ 7521528\_ 7521561\_1.0,0.796 | -0.313 | Down | 0.00133713 | 0.045923128 |
| SECISBP2 | SE | ENSG00000187742\_SECISBP2\_9\_+\_ 91934566\_ 91934712\_ 91933420\_ 91933527\_ 91940341\_ 91940591\_1.0,1.0 | -0.351 | Down | 0.00134039 | 0.045923128 |
| CBWD2 | SE | ENSG00000136682\_CBWD2\_2\_+\_114228609\_114228666\_114222705\_114222750\_114239753\_114239805\_0.886,1.0 | -0.223 | Down | 0.00134868 | 0.045974784 |
| SPIN1 | SE | ENSG00000106723\_SPIN1\_9\_+\_ 91063855\_ 91063904\_ 91003344\_ 91003453\_ 91083286\_ 91083520\_0.721,0.526 | 0.377 | Up | 0.0013521 | 0.045983493 |
| CXADR | SE | ENSG00000154639\_CXADR\_21\_+\_ 18933019\_ 18933142\_ 18931293\_ 18931449\_ 18937745\_ 18942418\_0.895,0.873 | -0.35 | Down | 0.00135401 | 0.045996954 |
| RP11-529K1.2 | SE | ENSG00000261777\_RP11-529K1.2\_16\_-\_ 70375842\_ 70376002\_ 70367685\_ 70367863\_ 70380101\_ 70380650\_0.189,0.582 | 0.615 | Up | 0.00136743 | 0.046224553 |
| ZNF620 | SE | ENSG00000177842\_ZNF620\_3\_+\_ 40553892\_ 40554006\_ 40552960\_ 40553087\_ 40557350\_ 40557435\_0.397,0.355 | -0.316 | Down | 0.00139477 | 0.046601626 |
| CD163L1 | SE | ENSG00000177675\_CD163L1\_12\_-\_ 7520653\_ 7520793\_ 7509975\_ 7510082\_ 7521528\_ 7521566\_1.0,0.764 | -0.439 | Down | 0.0013948 | 0.046601626 |
| PER1 | SE | ENSG00000179094\_PER1\_17\_-\_ 8048077\_ 8048311\_ 8046583\_ 8047194\_ 8049275\_ 8049455\_1.0,1.0 | -0.349 | Down | 0.00139963 | 0.046661458 |
| MAGI1 | SE | ENSG00000151276\_MAGI1\_3\_-\_ 65433696\_ 65433732\_ 65428466\_ 65428524\_ 65438932\_ 65439015\_0.254,0.665 | -0.391 | Down | 0.00140765 | 0.04687754 |
| REPS1 | SE | ENSG00000135597\_REPS1\_6\_-\_139247537\_139247618\_139242173\_139242261\_139251113\_139251235\_0.367,0.269 | 0.295 | Up | 0.00142463 | 0.047339289 |
| MACF1 | SE | ENSG00000127603\_MACF1\_1\_+\_ 39930766\_ 39930784\_ 39929283\_ 39929358\_ 39934286\_ 39934404\_0.683,0.596 | -0.299 | Down | 0.00142675 | 0.047358094 |
| PLS1 | SE | ENSG00000120756\_PLS1\_3\_+\_142338294\_142338480\_142316078\_142316190\_142383043\_142383149\_0.0,0.097 | 0.573 | Up | 0.00146836 | 0.048372332 |
| RTFDC1 | SE | ENSG00000022277\_RTFDC1\_20\_+\_ 55046669\_ 55046725\_ 55043734\_ 55043822\_ 55047381\_ 55047471\_0.0,0.0 | 0.294 | Up | 0.00149105 | 0.048955876 |
| ELP2 | SE | ENSG00000134759\_ELP2\_18\_+\_ 33721099\_ 33721164\_ 33718232\_ 33718389\_ 33734812\_ 33734962\_1.0,1.0 | -0.423 | Down | 0.00149258 | 0.048955876 |
| FBF1 | SE | ENSG00000188878\_FBF1\_17\_-\_ 73931712\_ 73931754\_ 73929075\_ 73929169\_ 73933646\_ 73933675\_0.697,0.365 | 0.395 | Up | 0.00149824 | 0.04908879 |
| SLC38A1 | SE | ENSG00000111371\_SLC38A1\_12\_-\_ 46648596\_ 46648719\_ 46633461\_ 46633676\_ 46662308\_ 46662780\_0.347,0.0 | 0.268 | Up | 0.00150737 | 0.049334854 |
| NAT1 | SE | ENSG00000171428\_NAT1\_8\_+\_ 18068701\_ 18068851\_ 18067617\_ 18067689\_ 18069899\_ 18070283\_0.325,1.0 | -0.662 | Down | 0.00153719 | 0.049891357 |
| EML3 | A3SS | ENSG00000149499\_EML3\_11\_-\_ 62378558\_ 62378819\_ 62378558\_ 62378816\_ 62378896\_ 62379068\_1.0,1.0 | -1 | Down | 4.35E-11 | 1.56E-07 |
| SUGP1 | A3SS | ENSG00000105705\_SUGP1\_19\_-\_ 19414532\_ 19414852\_ 19414532\_ 19414721\_ 19416657\_ 19416885\_1.0,1.0 | -0.851 | Down | 7.41E-10 | 1.33E-06 |
| PILRB | A3SS | ENSG00000121716\_PILRB\_7\_+\_ 99954016\_ 99954506\_ 99954372\_ 99954506\_ 99952765\_ 99952863\_1.0,1.0 | -0.649 | Down | 2.29E-08 | 2.74E-05 |
| DMXL2 | A3SS | ENSG00000104093\_DMXL2\_15\_-\_ 51768785\_ 51768916\_ 51768785\_ 51768913\_ 51770467\_ 51770544\_1.0,1.0 | -0.644 | Down | 5.46E-08 | 4.91E-05 |
| NPEPPS | A3SS | ENSG00000141279\_NPEPPS\_17\_+\_ 45654410\_ 45654526\_ 45654446\_ 45654526\_ 45646782\_ 45646860\_1.0,1.0 | -0.734 | Down | 7.30E-08 | 5.25E-05 |
| C5orf45 | A3SS | ENSG00000161010\_C5orf45\_5\_-\_179264275\_179267959\_179264275\_179264885\_179268906\_179269064\_1.0,1.0 | -0.475 | Down | 5.31E-07 | 0.000239008 |
| SMYD2 | A3SS | ENSG00000143499\_SMYD2\_1\_+\_214504292\_214507651\_214507542\_214507651\_214503510\_214503621\_1.0,1.0 | -0.784 | Down | 5.28E-07 | 0.000239008 |
| MAPKBP1 | A3SS | ENSG00000137802\_MAPKBP1\_15\_+\_ 42107456\_ 42107997\_ 42107821\_ 42107997\_ 42106747\_ 42106937\_1.0,1.0 | -0.479 | Down | 4.75E-07 | 0.000239008 |
| CARF | A3SS | ENSG00000138380\_CARF\_2\_+\_203789019\_203789138\_203789079\_203789138\_203782599\_203782766\_0.583,1.0 | -0.617 | Down | 8.12E-07 | 0.000324523 |
| AGTRAP | A3SS | ENSG00000177674\_AGTRAP\_1\_+\_ 11805986\_ 11806280\_ 11806044\_ 11806280\_ 11805859\_ 11805894\_0.0,0.0 | 0.529 | Up | 1.39E-06 | 0.000501864 |
| RBM26 | A3SS | ENSG00000139746\_RBM26\_13\_-\_ 79928573\_ 79928705\_ 79928573\_ 79928696\_ 79929354\_ 79929519\_1.0,1.0 | -0.374 | Down | 1.71E-06 | 0.000558221 |
| CCNL2 | A3SS | ENSG00000221978\_CCNL2\_1\_-\_ 1326145\_ 1326955\_ 1326145\_ 1326245\_ 1328169\_ 1328183\_1.0,1.0 | -0.422 | Down | 2.28E-06 | 0.000682766 |
| C16orf93 | A3SS | ENSG00000196118\_C16orf93\_16\_-\_ 30770974\_ 30771130\_ 30770974\_ 30771045\_ 30771604\_ 30771989\_0.0,0.237 | 0.881 | Up | 2.75E-06 | 0.000761887 |
| HSD17B1 | A3SS | ENSG00000108786\_HSD17B1\_17\_+\_ 40706419\_ 40706600\_ 40706422\_ 40706600\_ 40705811\_ 40705905\_1.0,1.0 | -0.528 | Down | 4.48E-06 | 0.001151632 |
| SLC25A10 | A3SS | ENSG00000183048\_SLC25A10\_17\_+\_ 79684723\_ 79684891\_ 79684786\_ 79684891\_ 79684428\_ 79684521\_0.0,0.0 | 0.227 | Up | 4.85E-06 | 0.001164853 |
| FNBP1 | A3SS | ENSG00000187239\_FNBP1\_9\_-\_132686122\_132686305\_132686122\_132686218\_132687238\_132687436\_1.0,1.0 | -0.447 | Down | 5.42E-06 | 0.001218324 |
| ZNF473 | A3SS | ENSG00000142528\_ZNF473\_19\_+\_ 50534148\_ 50534348\_ 50534270\_ 50534348\_ 50529149\_ 50529379\_1.0,1.0 | -0.44 | Down | 6.67E-06 | 0.001412024 |
| PGS1 | A3SS | ENSG00000087157\_PGS1\_17\_+\_ 76410959\_ 76411108\_ 76411032\_ 76411108\_ 76399648\_ 76400170\_1.0,1.0 | -0.347 | Down | 7.81E-06 | 0.001561927 |
| ZNF584 | A3SS | ENSG00000171574\_ZNF584\_19\_+\_ 58927159\_ 58927307\_ 58927185\_ 58927307\_ 58926890\_ 58927013\_1.0,0.771 | -0.643 | Down | 1.05E-05 | 0.001830116 |
| UBXN11 | A3SS | ENSG00000158062\_UBXN11\_1\_-\_ 26627416\_ 26627544\_ 26627416\_ 26627515\_ 26628184\_ 26628213\_0.0,0.0 | 0.538 | Up | 1.27E-05 | 0.002078188 |
| TTC18 | A3SS | ENSG00000156042\_TTC18\_10\_-\_ 75082720\_ 75082855\_ 75082720\_ 75082785\_ 75090934\_ 75091034\_1.0,0.889 | -0.382 | Down | 1.37E-05 | 0.002148384 |
| MASTL | A3SS | ENSG00000120539\_MASTL\_10\_+\_ 27462046\_ 27462188\_ 27462049\_ 27462188\_ 27458872\_ 27460012\_0.62,0.746 | -0.399 | Down | 1.51E-05 | 0.002177315 |
| NFKBID | A3SS | ENSG00000167604\_NFKBID\_19\_-\_ 36387814\_ 36388005\_ 36387814\_ 36387960\_ 36388552\_ 36388758\_0.0,0.0 | 0.512 | Up | 1.85E-05 | 0.002283351 |
| SYBU | A3SS | ENSG00000147642\_SYBU\_8\_-\_110654956\_110655161\_110654956\_110655158\_110656864\_110656945\_1.0,1.0 | -0.836 | Down | 1.90E-05 | 0.002283351 |
| SDHA | A3SS | ENSG00000073578\_SDHA\_5\_+\_ 254472\_ 254621\_ 254507\_ 254621\_ 240472\_ 240591\_1.0,1.0 | -0.293 | Down | 1.74E-05 | 0.002283351 |
| FCF1 | A3SS | ENSG00000119616\_FCF1\_14\_+\_ 75182523\_ 75182802\_ 75182653\_ 75182802\_ 75181574\_ 75181646\_0.0,0.0 | 0.214 | Up | 1.89E-05 | 0.002283351 |
| XRCC3 | A3SS | ENSG00000126215\_XRCC3\_14\_-\_104177802\_104177998\_104177802\_104177904\_104181760\_104181821\_1.0,1.0 | -0.365 | Down | 1.87E-05 | 0.002283351 |
| FKBP7 | A3SS | ENSG00000079150\_FKBP7\_2\_-\_179334378\_179334512\_179334378\_179334509\_179341788\_179341940\_0.927,1.0 | -0.369 | Down | 2.29E-05 | 0.002657611 |
| WDR27 | A3SS | ENSG00000184465\_WDR27\_6\_-\_170068077\_170068281\_170068077\_170068191\_170070664\_170070789\_1.0,1.0 | -0.55 | Down | 2.54E-05 | 0.002857305 |
| CCDC88A | A3SS | ENSG00000115355\_CCDC88A\_2\_-\_ 55555429\_ 55555571\_ 55555429\_ 55555568\_ 55559701\_ 55559829\_1.0,1.0 | -0.294 | Down | 4.04E-05 | 0.004280811 |
| GMIP | A3SS | ENSG00000089639\_GMIP\_19\_-\_ 19746223\_ 19746530\_ 19746223\_ 19746378\_ 19747515\_ 19747605\_1.0,1.0 | -0.309 | Down | 4.96E-05 | 0.005104898 |
| PRKCSH | A3SS | ENSG00000130175\_PRKCSH\_19\_+\_ 11558507\_ 11558604\_ 11558537\_ 11558604\_ 11558253\_ 11558433\_1.0,0.935 | -0.245 | Down | 5.83E-05 | 0.005674275 |
| ZNF512 | A3SS | ENSG00000243943\_ZNF512\_2\_+\_ 27820933\_ 27821121\_ 27820936\_ 27821121\_ 27806524\_ 27806583\_1.0,1.0 | -0.274 | Down | 6.45E-05 | 0.00595625 |
| PLEKHA6 | A3SS | ENSG00000143850\_PLEKHA6\_1\_-\_204230433\_204230636\_204230433\_204230576\_204234069\_204234170\_0.636,1.0 | -0.744 | Down | 7.34E-05 | 0.006369705 |
| QKI | A3SS | ENSG00000112531\_QKI\_6\_+\_163985698\_163991177\_163986977\_163991177\_163984451\_163984751\_0.786,0.797 | -0.329 | Down | 7.43E-05 | 0.006369705 |
| ATP11A | A3SS | ENSG00000068650\_ATP11A\_13\_+\_113536126\_113541482\_113536189\_113541482\_113530089\_113530255\_1.0,1.0 | -0.293 | Down | 8.15E-05 | 0.006823016 |
| PXK | A3SS | ENSG00000168297\_PXK\_3\_+\_ 58398627\_ 58398690\_ 58398630\_ 58398690\_ 58395816\_ 58395886\_1.0,1.0 | -0.266 | Down | 9.07E-05 | 0.007418349 |
| PLD3 | A3SS | ENSG00000105223\_PLD3\_19\_+\_ 40872290\_ 40872417\_ 40872325\_ 40872417\_ 40871459\_ 40871492\_0.347,1.0 | -0.622 | Down | 9.28E-05 | 0.007423023 |
| ZNF780A | A3SS | ENSG00000197782\_ZNF780A\_19\_-\_ 40587725\_ 40587824\_ 40587725\_ 40587821\_ 40589017\_ 40589144\_0.0,0.105 | 0.264 | Up | 0.00010605 | 0.008296985 |
| PTBP2 | A3SS | ENSG00000117569\_PTBP2\_1\_+\_ 97270340\_ 97270495\_ 97270355\_ 97270495\_ 97250614\_ 97250810\_1.0,0.783 | -0.581 | Down | 0.00011187 | 0.00854441 |
| ATP11A | A3SS | ENSG00000068650\_ATP11A\_13\_+\_113536129\_113541482\_113536189\_113541482\_113530089\_113530255\_1.0,1.0 | -0.266 | Down | 0.00011954 | 0.008622085 |
| MITF | A3SS | ENSG00000187098\_MITF\_3\_+\_ 70000962\_ 70001037\_ 70000980\_ 70001037\_ 69998201\_ 69998319\_0.0,0.0 | 0.208 | Up | 0.0001326 | 0.008837481 |
| YAF2 | A3SS | ENSG00000015153\_YAF2\_12\_-\_ 42604349\_ 42604482\_ 42604349\_ 42604421\_ 42631400\_ 42631526\_0.0,0.148 | 0.508 | Up | 0.00013092 | 0.008837481 |
| WDR31 | A3SS | ENSG00000148225\_WDR31\_9\_-\_116093263\_116093396\_116093263\_116093393\_116094186\_116094330\_1.0,1.0 | -0.369 | Down | 0.0001554 | 0.009812291 |
| BAHD1 | A3SS | ENSG00000140320\_BAHD1\_15\_+\_ 40754110\_ 40754493\_ 40754113\_ 40754493\_ 40750649\_ 40752095\_0.395,0.495 | 0.46 | Up | 0.00018884 | 0.011717874 |
| CBX7 | A3SS | ENSG00000100307\_CBX7\_22\_-\_ 39530405\_ 39530757\_ 39530405\_ 39530478\_ 39534640\_ 39534707\_0.454,0.599 | 0.474 | Up | 0.00021144 | 0.01289799 |
| PMS2P5 | A3SS | ENSG00000123965\_PMS2P5\_7\_+\_ 74312515\_ 74312628\_ 74312525\_ 74312628\_ 74312262\_ 74312349\_1.0,1.0 | -0.404 | Down | 0.00022006 | 0.012983429 |
| ZNF764 | A3SS | ENSG00000169951\_ZNF764\_16\_-\_ 30565084\_ 30567431\_ 30565084\_ 30567428\_ 30569053\_ 30569167\_0.164,0.0 | 0.386 | Up | 0.00025609 | 0.013964395 |
| POT1 | A3SS | ENSG00000128513\_POT1\_7\_-\_124568868\_124569053\_124568868\_124569050\_124569847\_124569879\_0.0,0.595 | 0.66 | Up | 0.00028815 | 0.015280968 |
| ZNF382 | A3SS | ENSG00000161298\_ZNF382\_19\_+\_ 37100803\_ 37100955\_ 37100828\_ 37100955\_ 37098453\_ 37098524\_0.0,0.521 | -0.261 | Down | 0.00033651 | 0.016590267 |
| TMEM25 | A3SS | ENSG00000149582\_TMEM25\_11\_+\_118402489\_118402586\_118402492\_118402586\_118401906\_118401949\_0.495,0.246 | 0.377 | Up | 0.00033398 | 0.016590267 |
| PPFIA2 | A3SS | ENSG00000139220\_PPFIA2\_12\_-\_ 81675035\_ 81675229\_ 81675035\_ 81675211\_ 81688613\_ 81688814\_0.622,0.717 | 0.26 | Up | 0.00038496 | 0.01872248 |
| CIC | A3SS | ENSG00000079432\_CIC\_19\_+\_ 42798086\_ 42798241\_ 42798089\_ 42798241\_ 42797743\_ 42797988\_0.655,0.76 | -0.235 | Down | 0.00040532 | 0.019194159 |
| PEX1 | A3SS | ENSG00000127980\_PEX1\_7\_-\_ 92130820\_ 92131393\_ 92130820\_ 92130987\_ 92132354\_ 92132509\_1.0,1.0 | -0.207 | Down | 0.00042177 | 0.019641809 |
| PSIP1 | A3SS | ENSG00000164985\_PSIP1\_9\_-\_ 15470633\_ 15471309\_ 15470633\_ 15471229\_ 15472629\_ 15472748\_0.704,0.543 | -0.359 | Down | 0.00050071 | 0.021976396 |
| DRG2 | A3SS | ENSG00000108591\_DRG2\_17\_+\_ 18002946\_ 18003749\_ 18003676\_ 18003749\_ 18002330\_ 18002391\_1.0,0.46 | 0.27 | Up | 0.00051546 | 0.022085037 |
| SYNGAP1 | A3SS | ENSG00000197283\_SYNGAP1\_6\_+\_ 33414351\_ 33414563\_ 33414357\_ 33414563\_ 33412220\_ 33412394\_1.0,1.0 | -0.294 | Down | 0.00058903 | 0.024146708 |
| CEP57L1 | A3SS | ENSG00000183137\_CEP57L1\_6\_+\_109480420\_109480665\_109480471\_109480665\_109480227\_109480305\_0.328,0.234 | -0.258 | Down | 0.0006314 | 0.025532567 |
| ACOT8 | A3SS | ENSG00000101473\_ACOT8\_20\_-\_ 44482561\_ 44482623\_ 44482561\_ 44482618\_ 44483797\_ 44483931\_0.0,0.326 | 0.618 | Up | 0.0007425 | 0.028428371 |
| ZNF566 | A3SS | ENSG00000186017\_ZNF566\_19\_-\_ 36963812\_ 36963911\_ 36963812\_ 36963908\_ 36964233\_ 36964360\_0.0,0.246 | 0.311 | Up | 0.00072844 | 0.028428371 |
| DESI2 | A3SS | ENSG00000121644\_DESI2\_1\_+\_244855180\_244855322\_244855185\_244855322\_244849898\_244849971\_1.0,1.0 | -0.289 | Down | 0.00075569 | 0.028628728 |
| MSTO1 | A3SS | ENSG00000125459\_MSTO1\_1\_+\_155581217\_155581394\_155581339\_155581394\_155581006\_155581082\_0.056,0.082 | 0.205 | Up | 0.00077717 | 0.028835537 |
| MAP4K2 | A3SS | ENSG00000168067\_MAP4K2\_11\_-\_ 64564575\_ 64564664\_ 64564575\_ 64564640\_ 64564746\_ 64564852\_1.0,1.0 | -0.27 | Down | 0.00077458 | 0.028835537 |
| PLEKHA7 | A3SS | ENSG00000166689\_PLEKHA7\_11\_-\_ 16812557\_ 16812749\_ 16812557\_ 16812746\_ 16816034\_ 16816261\_0.0,1.0 | 0.5 | Up | 0.00081097 | 0.029186647 |
| MAGIX | A3SS | ENSG00000017621\_MAGIX\_X\_+\_ 49022412\_ 49022971\_ 49022427\_ 49022971\_ 49021527\_ 49021699\_0.644,1.0 | -0.608 | Down | 0.00086938 | 0.029910832 |
| PCGF3 | A3SS | ENSG00000185619\_PCGF3\_4\_+\_ 726188\_ 726287\_ 726232\_ 726287\_ 724758\_ 724899\_1.0,1.0 | -0.209 | Down | 0.00087264 | 0.029910832 |
| FOXP1 | A3SS | ENSG00000114861\_FOXP1\_3\_-\_ 71026793\_ 71026873\_ 71026793\_ 71026870\_ 71026978\_ 71027180\_0.83,0.895 | -0.227 | Down | 0.00097283 | 0.031304838 |
| CLTCL1 | A3SS | ENSG00000070371\_CLTCL1\_22\_-\_ 19183776\_ 19184167\_ 19183776\_ 19183926\_ 19187244\_ 19187352\_1.0,1.0 | -0.607 | Down | 0.00102339 | 0.032308461 |
| STOML1 | A3SS | ENSG00000067221\_STOML1\_15\_-\_ 74276999\_ 74277212\_ 74276999\_ 74277209\_ 74277658\_ 74277854\_1.0,0.893 | -0.326 | Down | 0.00104832 | 0.032524899 |
| GPNMB | A3SS | ENSG00000136235\_GPNMB\_7\_+\_ 23306099\_ 23306234\_ 23306135\_ 23306234\_ 23300074\_ 23300392\_0.0,0.0 | 0.231 | Up | 0.00110842 | 0.03399085 |
| MIB2 | A3SS | ENSG00000197530\_MIB2\_1\_+\_ 1560925\_ 1562134\_ 1562029\_ 1562134\_ 1560665\_ 1560808\_1.0,0.627 | -0.415 | Down | 0.00111445 | 0.03399085 |
| SPPL2B | A3SS | ENSG00000005206\_SPPL2B\_19\_+\_ 2339822\_ 2339965\_ 2339825\_ 2339965\_ 2339067\_ 2339207\_0.797,0.688 | 0.202 | Up | 0.0011624 | 0.035155148 |
| GTF2IRD1 | A3SS | ENSG00000006704\_GTF2IRD1\_7\_+\_ 73969722\_ 73969824\_ 73969767\_ 73969824\_ 73969503\_ 73969553\_1.0,0.602 | -0.443 | Down | 0.0012057 | 0.035807557 |
| PHF21A | A3SS | ENSG00000135365\_PHF21A\_11\_-\_ 46098304\_ 46098391\_ 46098304\_ 46098370\_ 46100684\_ 46100717\_0.465,0.063 | -0.252 | Down | 0.00146089 | 0.040444252 |
| ARHGAP33 | A3SS | ENSG00000004777\_ARHGAP33\_19\_+\_ 36277314\_ 36277974\_ 36277797\_ 36277974\_ 36276310\_ 36276385\_1.0,1.0 | -0.323 | Down | 0.0015333 | 0.041420307 |
| RP11-347C12.2 | A3SS | ENSG00000183604\_RP11-347C12.2\_16\_-\_ 30288584\_ 30288749\_ 30288584\_ 30288707\_ 30288917\_ 30289114\_1.0,1.0 | -0.283 | Down | 0.00163348 | 0.041613387 |
| SEPT5 | A3SS | ENSG00000184702\_SEPT5\_22\_+\_ 19709344\_ 19709480\_ 19709355\_ 19709480\_ 19709162\_ 19709259\_1.0,1.0 | -0.222 | Down | 0.00160079 | 0.041613387 |
| MIB2 | A3SS | ENSG00000197530\_MIB2\_1\_+\_ 1558768\_ 1559079\_ 1558810\_ 1559079\_ 1551887\_ 1551994\_0.0,0.658 | 0.474 | Up | 0.00160602 | 0.041613387 |
| IRF7 | A3SS | ENSG00000185507\_IRF7\_11\_-\_ 614475\_ 614534\_ 614475\_ 614531\_ 614796\_ 615007\_1.0,1.0 | -0.23 | Down | 0.00178502 | 0.044001848 |
| METTL17 | A3SS | ENSG00000165792\_METTL17\_14\_+\_ 21460250\_ 21460364\_ 21460282\_ 21460364\_ 21458622\_ 21458757\_0.404,0.494 | -0.245 | Down | 0.00194988 | 0.047368335 |
| ZNF19 | A3SS | ENSG00000157429\_ZNF19\_16\_-\_ 71512781\_ 71513003\_ 71512781\_ 71512908\_ 71515984\_ 71516046\_1.0,0.0 | 0.5 | Up | 0.00200809 | 0.048180824 |
| PLXND1 | A3SS | ENSG00000004399\_PLXND1\_3\_-\_129304794\_129304924\_129304794\_129304891\_129305014\_129305115\_0.708,0.669 | 0.285 | Up | 0.00207204 | 0.048740417 |
| PTPN4 | A5SS | ENSG00000088179\_PTPN4\_2\_+\_120672754\_120674266\_120672754\_120672818\_120689999\_120690125\_1.0,1.0 | -0.925 | Down | 1.89E-15 | 4.62E-12 |
| ELMOD3 | A5SS | ENSG00000115459\_ELMOD3\_2\_+\_ 85582677\_ 85582907\_ 85582677\_ 85582721\_ 85584089\_ 85584375\_0.176,0.0 | 0.912 | Up | 4.30E-14 | 5.26E-11 |
| ELMOD3 | A5SS | ENSG00000115459\_ELMOD3\_2\_+\_ 85582677\_ 85582839\_ 85582677\_ 85582721\_ 85584089\_ 85584375\_0.213,0.0 | 0.893 | Up | 3.11E-13 | 2.54E-10 |
| ELMOD3 | A5SS | ENSG00000115459\_ELMOD3\_2\_+\_ 85582677\_ 85583019\_ 85582677\_ 85582721\_ 85584089\_ 85584375\_0.137,0.096 | 0.883 | Up | 1.56E-10 | 9.55E-08 |
| UBE2J2 | A5SS | ENSG00000160087\_UBE2J2\_1\_-\_ 1203112\_ 1203372\_ 1203241\_ 1203372\_ 1201477\_ 1201670\_1.0,1.0 | -0.814 | Down | 8.07E-09 | 3.95E-06 |
| MGAT4B | A5SS | ENSG00000161013\_MGAT4B\_5\_-\_179225503\_179225591\_179225512\_179225591\_179225164\_179225277\_1.0,1.0 | -0.84 | Down | 1.48E-07 | 6.02E-05 |
| MRRF | A5SS | ENSG00000148187\_MRRF\_9\_+\_125047447\_125048225\_125047447\_125047566\_125048317\_125048445\_1.0,1.0 | -0.708 | Down | 2.58E-07 | 7.90E-05 |
| HDLBP | A5SS | ENSG00000115677\_HDLBP\_2\_-\_242208372\_242208710\_242208620\_242208710\_242207891\_242207956\_0.152,0.152 | 0.848 | Up | 2.41E-07 | 7.90E-05 |
| CCDC84 | A5SS | ENSG00000186166\_CCDC84\_11\_+\_118881930\_118882021\_118881930\_118881993\_118882648\_118882713\_0.0,0.0 | 0.813 | Up | 3.85E-07 | 0.000104831 |
| AC007405.6 | A5SS | ENSG00000239467\_AC007405.6\_2\_+\_171627622\_171627937\_171627622\_171627697\_171633886\_171633935\_1.0,1.0 | -0.625 | Down | 4.86E-07 | 0.000119082 |
| P4HTM | A5SS | ENSG00000178467\_P4HTM\_3\_+\_ 49039932\_ 49043620\_ 49039932\_ 49040029\_ 49044119\_ 49044548\_1.0,1.0 | -0.607 | Down | 7.13E-07 | 0.000158677 |
| PNISR | A5SS | ENSG00000132424\_PNISR\_6\_-\_ 99851704\_ 99852578\_ 99852478\_ 99852578\_ 99850415\_ 99850586\_1.0,1.0 | -0.558 | Down | 1.03E-06 | 0.000210146 |
| ITPR1 | A5SS | ENSG00000150995\_ITPR1\_3\_+\_ 4716751\_ 4716932\_ 4716751\_ 4716905\_ 4718297\_ 4718485\_0.0,0.0 | 0.636 | Up | 1.22E-06 | 0.00021399 |
| ACAA2 | A5SS | ENSG00000167315\_ACAA2\_18\_-\_ 47340051\_ 47340323\_ 47340186\_ 47340323\_ 47329056\_ 47329223\_0.753,0.487 | 0.38 | Up | 1.22E-06 | 0.00021399 |
| PTBP3 | A5SS | ENSG00000119314\_PTBP3\_9\_-\_115060111\_115060196\_115060120\_115060196\_115030328\_115030475\_1.0,0.956 | -0.267 | Down | 1.38E-06 | 0.00022581 |
| CDK20 | A5SS | ENSG00000156345\_CDK20\_9\_-\_ 90585482\_ 90585812\_ 90585690\_ 90585812\_ 90584710\_ 90584834\_1.0,1.0 | -0.477 | Down | 1.77E-06 | 0.000270055 |
| CD46 | A5SS | ENSG00000117335\_CD46\_1\_+\_207940357\_207943707\_207940357\_207940540\_207956636\_207956675\_1.0,1.0 | -0.419 | Down | 1.99E-06 | 0.000286107 |
| GMIP | A5SS | ENSG00000089639\_GMIP\_19\_-\_ 19753343\_ 19753428\_ 19753345\_ 19753428\_ 19752784\_ 19752860\_0.568,0.862 | 0.285 | Up | 3.88E-06 | 0.000500181 |
| ZNF276 | A5SS | ENSG00000158805\_ZNF276\_16\_+\_ 89793686\_ 89793765\_ 89793686\_ 89793733\_ 89795642\_ 89795726\_0.83,1.0 | -0.404 | Down | 3.77E-06 | 0.000500181 |
| NOL8 | A5SS | ENSG00000198000\_NOL8\_9\_-\_ 95087187\_ 95087632\_ 95087599\_ 95087632\_ 95086304\_ 95086491\_0.084,0.153 | 0.488 | Up | 1.54E-05 | 0.001710276 |
| CLPTM1L | A5SS | ENSG00000049656\_CLPTM1L\_5\_-\_ 1331913\_ 1331998\_ 1331917\_ 1331998\_ 1325865\_ 1325931\_1.0,1.0 | -0.35 | Down | 2.02E-05 | 0.002065092 |
| ZSCAN25 | A5SS | ENSG00000197037\_ZSCAN25\_7\_+\_ 99217183\_ 99217620\_ 99217183\_ 99217616\_ 99218995\_ 99219197\_0.163,0.0 | 0.269 | Up | 4.24E-05 | 0.003994425 |
| CLN6 | A5SS | ENSG00000128973\_CLN6\_15\_-\_ 68503893\_ 68504201\_ 68503986\_ 68504201\_ 68503600\_ 68503656\_1.0,1.0 | -0.369 | Down | 5.25E-05 | 0.004758795 |
| RMND1 | A5SS | ENSG00000155906\_RMND1\_6\_-\_151757554\_151757689\_151757580\_151757689\_151754289\_151754365\_0.0,0.0 | 0.201 | Up | 5.53E-05 | 0.004831338 |
| CCNL2 | A5SS | ENSG00000221978\_CCNL2\_1\_-\_ 1328058\_ 1328183\_ 1328169\_ 1328183\_ 1326145\_ 1326245\_1.0,1.0 | -0.266 | Down | 6.16E-05 | 0.00486266 |
| WDR90 | A5SS | ENSG00000161996\_WDR90\_16\_+\_ 703745\_ 705147\_ 703745\_ 703803\_ 705306\_ 705468\_1.0,1.0 | -0.64 | Down | 5.96E-05 | 0.00486266 |
| MYO9A | A5SS | ENSG00000066933\_MYO9A\_15\_-\_ 72244042\_ 72244237\_ 72244117\_ 72244237\_ 72231192\_ 72231268\_0.722,1.0 | -0.53 | Down | 6.76E-05 | 0.004864673 |
| HDLBP | A5SS | ENSG00000115677\_HDLBP\_2\_-\_242208368\_242208710\_242208620\_242208710\_242207891\_242207956\_0.471,0.516 | 0.506 | Up | 6.59E-05 | 0.004864673 |
| MSTO1 | A5SS | ENSG00000125459\_MSTO1\_1\_+\_155583447\_155583557\_155583447\_155583524\_155583849\_155584726\_0.821,0.649 | 0.233 | Up | 8.17E-05 | 0.005407656 |
| ZMYND8 | A5SS | ENSG00000101040\_ZMYND8\_20\_-\_ 45867501\_ 45867882\_ 45867639\_ 45867882\_ 45865069\_ 45865260\_0.091,0.0 | 0.215 | Up | 8.59E-05 | 0.005531606 |
| MYB | A5SS | ENSG00000118513\_MYB\_6\_+\_135515493\_135515598\_135515493\_135515589\_135516885\_135517140\_1.0,1.0 | -0.254 | Down | 9.95E-05 | 0.006247279 |
| STK16 | A5SS | ENSG00000115661\_STK16\_2\_+\_220110617\_220111598\_220110617\_220110807\_220112136\_220112257\_1.0,1.0 | -0.268 | Down | 0.00010732 | 0.006392125 |
| SLC25A19 | A5SS | ENSG00000125454\_SLC25A19\_17\_-\_ 73284468\_ 73284672\_ 73284578\_ 73284672\_ 73282713\_ 73282883\_1.0,1.0 | -0.244 | Down | 0.00011781 | 0.006707005 |
| GALE | A5SS | ENSG00000117308\_GALE\_1\_-\_ 24122998\_ 24123272\_ 24123186\_ 24123272\_ 24122640\_ 24122755\_1.0,1.0 | -0.241 | Down | 0.00012297 | 0.006841878 |
| SERF2 | A5SS | ENSG00000140264\_SERF2\_15\_+\_ 44084565\_ 44084809\_ 44084565\_ 44084776\_ 44085172\_ 44085281\_0.492,0.336 | 0.46 | Up | 0.00012623 | 0.006867108 |
| RAD51AP1 | A5SS | ENSG00000111247\_RAD51AP1\_12\_+\_ 4652928\_ 4653077\_ 4652928\_ 4653070\_ 4655474\_ 4655584\_0.488,0.192 | -0.299 | Down | 0.00013401 | 0.007131874 |
| QARS | A5SS | ENSG00000172053\_QARS\_3\_-\_ 49141789\_ 49141904\_ 49141805\_ 49141904\_ 49141295\_ 49141405\_1.0,1.0 | -0.259 | Down | 0.00015009 | 0.007817344 |
| CLK3 | A5SS | ENSG00000179335\_CLK3\_15\_+\_ 74912349\_ 74914557\_ 74912349\_ 74912566\_ 74914834\_ 74914901\_1.0,1.0 | -0.426 | Down | 0.00018356 | 0.008987034 |
| SDR39U1 | A5SS | ENSG00000100445\_SDR39U1\_14\_-\_ 24911303\_ 24911466\_ 24911383\_ 24911466\_ 24909988\_ 24910132\_1.0,0.559 | -0.539 | Down | 0.00023481 | 0.011054303 |
| MSH5 | A5SS | ENSG00000204410\_MSH5\_6\_+\_ 31707724\_ 31707997\_ 31707724\_ 31707839\_ 31708939\_ 31709063\_0.0,0.584 | 0.534 | Up | 0.00025342 | 0.011705236 |
| NOL8 | A5SS | ENSG00000198000\_NOL8\_9\_-\_ 95087587\_ 95087632\_ 95087599\_ 95087632\_ 95086304\_ 95086491\_0.077,0.664 | 0.534 | Up | 0.0003114 | 0.013673823 |
| PLCD1 | A5SS | ENSG00000187091\_PLCD1\_3\_-\_ 38051394\_ 38051766\_ 38051621\_ 38051766\_ 38051143\_ 38051302\_1.0,1.0 | -0.399 | Down | 0.0003128 | 0.013673823 |
| BRF1 | A5SS | ENSG00000185024\_BRF1\_14\_-\_105766782\_105781926\_105781658\_105781926\_105752632\_105752713\_1.0,1.0 | -0.45 | Down | 0.00044876 | 0.017718689 |
| PACRGL | A5SS | ENSG00000163138\_PACRGL\_4\_+\_ 20702081\_ 20702410\_ 20702081\_ 20702370\_ 20706088\_ 20706156\_0.631,0.591 | 0.295 | Up | 0.00044772 | 0.017718689 |
| RP11-296I10.6 | A5SS | ENSG00000261556\_RP11-296I10.6\_16\_-\_ 70265225\_ 70265426\_ 70265339\_ 70265426\_ 70264896\_ 70265061\_1.0,1.0 | -0.427 | Down | 0.00049206 | 0.018821468 |
| SNRNP70 | A5SS | ENSG00000104852\_SNRNP70\_19\_+\_ 49605370\_ 49606844\_ 49605370\_ 49605430\_ 49607890\_ 49607992\_1.0,1.0 | -0.447 | Down | 0.00050431 | 0.018993156 |
| WDR90 | A5SS | ENSG00000161996\_WDR90\_16\_+\_ 712672\_ 713064\_ 712672\_ 712844\_ 715678\_ 715801\_0.052,0.279 | 0.603 | Up | 0.0005253 | 0.019020499 |
| RTEL1 | A5SS | ENSG00000258366\_RTEL1\_20\_+\_ 62326680\_ 62327003\_ 62326680\_ 62326833\_ 62327130\_ 62327606\_1.0,0.474 | -0.463 | Down | 0.00054389 | 0.019020499 |
| HDLBP | A5SS | ENSG00000115677\_HDLBP\_2\_-\_242208615\_242208710\_242208620\_242208710\_242207891\_242207956\_0.659,0.591 | 0.375 | Up | 0.00065481 | 0.022577006 |
| STXBP2 | A5SS | ENSG00000076944\_STXBP2\_19\_+\_ 7712047\_ 7712397\_ 7712047\_ 7712133\_ 7712610\_ 7712759\_1.0,1.0 | -0.224 | Down | 0.00072583 | 0.024011284 |
| STOX1 | A5SS | ENSG00000165730\_STOX1\_10\_+\_ 70644015\_ 70646374\_ 70644015\_ 70644215\_ 70652344\_ 70652816\_0.261,1.0 | 0.369 | Up | 0.00077777 | 0.025050544 |
| TMSB15B | A5SS | ENSG00000158427\_TMSB15B\_X\_+\_103217241\_103218867\_103217241\_103217296\_103219078\_103219195\_1.0,0.58 | -0.576 | Down | 0.00080044 | 0.025121517 |
| RAB15 | A5SS | ENSG00000139998\_RAB15\_14\_-\_ 65417660\_ 65417869\_ 65417791\_ 65417869\_ 65417042\_ 65417132\_0.045,0.038 | 0.207 | Up | 0.00081875 | 0.025186223 |
| SSBP4 | A5SS | ENSG00000130511\_SSBP4\_19\_+\_ 18544519\_ 18544742\_ 18544519\_ 18544627\_ 18545026\_ 18545372\_1.0,0.732 | -0.503 | Down | 0.00084034 | 0.025396805 |
| MUTYH | A5SS | ENSG00000132781\_MUTYH\_1\_-\_ 45803857\_ 45804328\_ 45804178\_ 45804328\_ 45800062\_ 45800183\_0.232,1.0 | -0.508 | Down | 0.00088274 | 0.025838286 |
| SLC39A11 | A5SS | ENSG00000133195\_SLC39A11\_17\_-\_ 70943869\_ 70944014\_ 70943890\_ 70944014\_ 70845772\_ 70845943\_0.367,0.118 | 0.313 | Up | 0.00091745 | 0.026422656 |
| RBMS2 | A5SS | ENSG00000076067\_RBMS2\_12\_+\_ 56981337\_ 56981448\_ 56981337\_ 56981443\_ 56982077\_ 56982158\_0.0,0.326 | 0.595 | Up | 0.00105322 | 0.029157551 |
| RPS6KL1 | A5SS | ENSG00000198208\_RPS6KL1\_14\_-\_ 75375803\_ 75376851\_ 75376245\_ 75376851\_ 75375552\_ 75375635\_0.107,1.0 | 0.447 | Up | 0.001235 | 0.033222834 |
| ELMOD3 | A5SS | ENSG00000115459\_ELMOD3\_2\_+\_ 85598208\_ 85598685\_ 85598208\_ 85598332\_ 85604466\_ 85604597\_0.22,0.0 | 0.589 | Up | 0.00125334 | 0.033349614 |
| FAM86B1 | A5SS | ENSG00000186523\_FAM86B1\_8\_-\_ 12051385\_ 12051591\_ 12051483\_ 12051591\_ 12049287\_ 12049350\_0.54,0.227 | 0.617 | Up | 0.00142272 | 0.037051247 |
| NECAP2 | A5SS | ENSG00000157191\_NECAP2\_1\_+\_ 16775587\_ 16778510\_ 16775587\_ 16775696\_ 16782312\_ 16782388\_1.0,0.18 | 0.41 | Up | 0.00147822 | 0.037504445 |
| KAT6B | A5SS | ENSG00000156650\_KAT6B\_10\_+\_ 76741544\_ 76744999\_ 76741544\_ 76741686\_ 76748776\_ 76748870\_1.0,1.0 | -0.384 | Down | 0.00155256 | 0.038006669 |
| KLK4 | A5SS | ENSG00000167749\_KLK4\_19\_-\_ 51411614\_ 51412085\_ 51411834\_ 51412085\_ 51410189\_ 51410342\_0.657,0.481 | -0.207 | Down | 0.00159494 | 0.038246239 |
| U2SURP | A5SS | ENSG00000163714\_U2SURP\_3\_+\_142740191\_142740227\_142740191\_142740224\_142740314\_142740397\_0.704,0.62 | -0.255 | Down | 0.00158123 | 0.038246239 |
| CTNND1 | A5SS | ENSG00000198561\_CTNND1\_11\_+\_ 57529268\_ 57529591\_ 57529268\_ 57529540\_ 57561481\_ 57561553\_1.0,0.921 | -0.241 | Down | 0.00160922 | 0.038246239 |
| PARD3 | A5SS | ENSG00000148498\_PARD3\_10\_-\_ 34626202\_ 34626354\_ 34626205\_ 34626354\_ 34625126\_ 34625171\_1.0,0.329 | -0.5 | Down | 0.00169536 | 0.039153271 |
| RNF146 | A5SS | ENSG00000118518\_RNF146\_6\_+\_127588027\_127588240\_127588027\_127588070\_127601375\_127601485\_0.184,0.231 | -0.208 | Down | 0.00175881 | 0.039687137 |
| SGK494 | A5SS | ENSG00000167524\_SGK494\_17\_-\_ 26938410\_ 26938674\_ 26938584\_ 26938674\_ 26938160\_ 26938271\_1.0,1.0 | -0.314 | Down | 0.00178123 | 0.039687137 |
| USP32 | A5SS | ENSG00000170832\_USP32\_17\_-\_ 58296988\_ 58297148\_ 58297030\_ 58297148\_ 58291980\_ 58292135\_0.237,0.363 | 0.221 | Up | 0.00185851 | 0.04026226 |
| SDR39U1 | A5SS | ENSG00000100445\_SDR39U1\_14\_-\_ 24911314\_ 24911466\_ 24911383\_ 24911466\_ 24909988\_ 24910132\_1.0,0.401 | -0.428 | Down | 0.00205143 | 0.04366869 |
| HPS1 | A5SS | ENSG00000107521\_HPS1\_10\_-\_100193696\_100193848\_100193739\_100193848\_100190887\_100191048\_0.0,0.179 | 0.279 | Up | 0.00214902 | 0.045351676 |
| SCAPER | A5SS | ENSG00000140386\_SCAPER\_15\_-\_ 77087581\_ 77087781\_ 77087620\_ 77087781\_ 77067195\_ 77067458\_0.281,0.143 | -0.212 | Down | 0.00238583 | 0.048510638 |
| ZNF384 | A5SS | ENSG00000126746\_ZNF384\_12\_-\_ 6798263\_ 6798676\_ 6798533\_ 6798676\_ 6797332\_ 6797392\_1.0,1.0 | -0.305 | Down | 0.00241761 | 0.048510638 |
| CAPN10 | A5SS | ENSG00000142330\_CAPN10\_2\_+\_241530231\_241530428\_241530231\_241530417\_241531349\_241531567\_0.65,0.764 | 0.293 | Up | 0.00247911 | 0.048942331 |
| MBD5 | A5SS | ENSG00000204406\_MBD5\_2\_+\_149240678\_149241704\_149240678\_149241005\_149243310\_149243519\_1.0,1.0 | -0.325 | Down | 0.00246111 | 0.048942331 |
| NUP54 | RI | ENSG00000138750\_NUP54\_4\_-\_ 77038816\_ 77039347\_ 77038816\_ 77038895\_ 77039227\_ 77039347\_1.0,1.0 | -0.955 | Down | 2.94E-12 | 8.94E-09 |
| ADC | RI | ENSG00000142920\_ADC\_1\_+\_ 33583502\_ 33586131\_ 33583502\_ 33583717\_ 33585644\_ 33586131\_1.0,1.0 | -1 | Down | 2.72E-10 | 4.15E-07 |
| RHOT2 | RI | ENSG00000140983\_RHOT2\_16\_+\_ 718655\_ 720175\_ 718655\_ 718699\_ 720122\_ 720175\_1.0,1.0 | -0.743 | Down | 6.94E-10 | 5.28E-07 |
| MTO1 | RI | ENSG00000135297\_MTO1\_6\_+\_ 74189658\_ 74190090\_ 74189658\_ 74189849\_ 74190015\_ 74190090\_0.0,0.0 | 0.789 | Up | 5.98E-10 | 5.28E-07 |
| B4GALNT1 | RI | ENSG00000135454\_B4GALNT1\_12\_-\_ 58021400\_ 58022045\_ 58021400\_ 58021674\_ 58021904\_ 58022045\_0.0,0.0 | 1 | Up | 2.70E-09 | 1.65E-06 |
| ZNF598 | RI | ENSG00000167962\_ZNF598\_16\_-\_ 2052521\_ 2053729\_ 2052521\_ 2052733\_ 2053616\_ 2053729\_1.0,1.0 | -0.601 | Down | 9.90E-08 | 4.31E-05 |
| TMEM147 | RI | ENSG00000105677\_TMEM147\_19\_+\_ 36037573\_ 36038142\_ 36037573\_ 36037710\_ 36038020\_ 36038142\_0.623,0.513 | 0.432 | Up | 2.01E-07 | 7.65E-05 |
| BEST1 | RI | ENSG00000167995\_BEST1\_11\_+\_ 61725617\_ 61727050\_ 61725617\_ 61725770\_ 61726969\_ 61727050\_1.0,1.0 | -0.785 | Down | 2.90E-07 | 9.82E-05 |
| EME2 | RI | ENSG00000197774\_EME2\_16\_+\_ 1825041\_ 1825409\_ 1825041\_ 1825133\_ 1825315\_ 1825409\_1.0,1.0 | -0.656 | Down | 4.07E-07 | 0.000123849 |
| ABCD4 | RI | ENSG00000119688\_ABCD4\_14\_-\_ 74759450\_ 74759951\_ 74759450\_ 74759572\_ 74759856\_ 74759951\_0.273,0.18 | -0.217 | Down | 2.51E-06 | 0.000694062 |
| HMBS | RI | ENSG00000256269\_HMBS\_11\_+\_118959344\_118959841\_118959344\_118959558\_118959791\_118959841\_1.0,1.0 | -0.54 | Down | 2.88E-06 | 0.000729566 |
| EXOSC8 | RI | ENSG00000120699\_EXOSC8\_13\_+\_ 37577070\_ 37578698\_ 37577070\_ 37577144\_ 37578613\_ 37578698\_1.0,1.0 | -0.693 | Down | 3.17E-06 | 0.000743572 |
| NSUN5P1 | RI | ENSG00000223705\_NSUN5P1\_7\_+\_ 75042066\_ 75044301\_ 75042066\_ 75042210\_ 75044162\_ 75044301\_1.0,0.0 | 0.5 | Up | 3.93E-06 | 0.000854722 |
| CLK1 | RI | ENSG00000013441\_CLK1\_2\_-\_201724402\_201726189\_201724402\_201724469\_201725960\_201726189\_1.0,0.839 | -0.566 | Down | 5.90E-06 | 0.001197648 |
| ZNF276 | RI | ENSG00000158805\_ZNF276\_16\_+\_ 89789544\_ 89790117\_ 89789544\_ 89789591\_ 89789667\_ 89790117\_0.0,0.047 | 0.225 | Up | 6.93E-06 | 0.00131975 |
| CASKIN2 | RI | ENSG00000177303\_CASKIN2\_17\_-\_ 73499469\_ 73499841\_ 73499469\_ 73499608\_ 73499739\_ 73499841\_0.114,0.0 | 0.44 | Up | 8.47E-06 | 0.001499108 |
| RSRC2 | RI | ENSG00000111011\_RSRC2\_12\_-\_123003385\_123005975\_123003385\_123003598\_123005931\_123005975\_1.0,1.0 | -0.871 | Down | 8.86E-06 | 0.001499108 |
| OTUD5 | RI | ENSG00000068308\_OTUD5\_X\_-\_ 48791736\_ 48792140\_ 48791736\_ 48791885\_ 48791968\_ 48792140\_1.0,1.0 | -0.464 | Down | 2.24E-05 | 0.002963835 |
| RBM3 | RI | ENSG00000102317\_RBM3\_X\_+\_ 48433948\_ 48434471\_ 48433948\_ 48434055\_ 48434202\_ 48434471\_1.0,1.0 | -0.406 | Down | 2.38E-05 | 0.003013639 |
| DDX26B | RI | ENSG00000165359\_DDX26B\_X\_+\_134703261\_134706958\_134703261\_134703356\_134706739\_134706958\_0.019,1.0 | 0.491 | Up | 2.72E-05 | 0.003310828 |
| GPT | RI | ENSG00000167701\_GPT\_8\_+\_145730153\_145730514\_145730153\_145730262\_145730380\_145730514\_0.764,0.289 | 0.474 | Up | 2.88E-05 | 0.003367982 |
| MAP4K2 | RI | ENSG00000168067\_MAP4K2\_11\_-\_ 64564746\_ 64565006\_ 64564746\_ 64564852\_ 64564972\_ 64565006\_0.041,0.137 | 0.22 | Up | 3.49E-05 | 0.003535579 |
| PGAP1 | RI | ENSG00000197121\_PGAP1\_2\_-\_197711726\_197712761\_197711726\_197711924\_197712670\_197712761\_0.386,0.136 | -0.261 | Down | 3.56E-05 | 0.003535579 |
| ROBO3 | RI | ENSG00000154134\_ROBO3\_11\_+\_124747414\_124748027\_124747414\_124747648\_124747832\_124748027\_1.0,1.0 | -0.586 | Down | 3.45E-05 | 0.003535579 |
| NARFL | RI | ENSG00000103245\_NARFL\_16\_-\_ 780842\_ 782900\_ 780842\_ 781000\_ 782300\_ 782900\_1.0,1.0 | -0.553 | Down | 4.16E-05 | 0.003956292 |
| CUTA | RI | ENSG00000112514\_CUTA\_6\_-\_ 33384873\_ 33385087\_ 33384873\_ 33384919\_ 33385023\_ 33385087\_1.0,1.0 | -0.338 | Down | 4.69E-05 | 0.004325253 |
| WASH4P | RI | ENSG00000234769\_WASH4P\_16\_-\_ 66915\_ 67427\_ 66915\_ 67051\_ 67290\_ 67427\_0.424,1.0 | -0.712 | Down | 5.83E-05 | 0.004711769 |
| AP1G2 | RI | ENSG00000213983\_AP1G2\_14\_-\_ 24035024\_ 24035369\_ 24035024\_ 24035101\_ 24035272\_ 24035369\_0.06,0.3 | 0.379 | Up | 6.95E-05 | 0.005292631 |
| SLC10A3 | RI | ENSG00000126903\_SLC10A3\_X\_-\_153718645\_153719002\_153718645\_153718697\_153718932\_153719002\_1.0,1.0 | -0.539 | Down | 7.24E-05 | 0.005374709 |
| NDUFV1 | RI | ENSG00000167792\_NDUFV1\_11\_+\_ 67375870\_ 67376193\_ 67375870\_ 67375949\_ 67376030\_ 67376193\_1.0,1.0 | -0.234 | Down | 7.91E-05 | 0.005658202 |
| HCG18 | RI | ENSG00000231074\_HCG18\_6\_-\_ 30258782\_ 30262741\_ 30258782\_ 30260376\_ 30262247\_ 30262741\_1.0,1.0 | -0.484 | Down | 8.39E-05 | 0.00580602 |
| TMEM256-PLSCR3 | RI | ENSG00000187838\_TMEM256-PLSCR3\_17\_-\_ 7296919\_ 7297586\_ 7296919\_ 7297155\_ 7297422\_ 7297586\_0.0,0.0 | 0.593 | Up | 0.00011018 | 0.007455524 |
| SYTL1 | RI | ENSG00000142765\_SYTL1\_1\_+\_ 27675888\_ 27676256\_ 27675888\_ 27675989\_ 27676142\_ 27676256\_0.388,0.323 | 0.557 | Up | 0.00011442 | 0.007472626 |
| QKI | RI | ENSG00000112531\_QKI\_6\_+\_163984451\_163991177\_163984451\_163984751\_163986977\_163991177\_0.746,0.738 | -0.337 | Down | 0.00016114 | 0.009941709 |
| MSTO1 | RI | ENSG00000125459\_MSTO1\_1\_+\_155581006\_155581394\_155581006\_155581146\_155581339\_155581394\_1.0,1.0 | -0.222 | Down | 0.00017381 | 0.010177852 |
| SNX16 | RI | ENSG00000104497\_SNX16\_8\_-\_ 82751846\_ 82752317\_ 82751846\_ 82751986\_ 82752073\_ 82752317\_1.0,1.0 | -0.209 | Down | 0.00018617 | 0.010498115 |
| NOL3 | RI | ENSG00000140939\_NOL3\_16\_+\_ 67208064\_ 67208847\_ 67208064\_ 67208367\_ 67208523\_ 67208847\_0.0,0.0 | 0.268 | Up | 0.00026998 | 0.01417397 |
| LYPD3 | RI | ENSG00000124466\_LYPD3\_19\_-\_ 43967277\_ 43967921\_ 43967277\_ 43967439\_ 43967750\_ 43967921\_1.0,1.0 | -0.436 | Down | 0.00044091 | 0.020342193 |
| B4GALNT1 | RI | ENSG00000135454\_B4GALNT1\_12\_-\_ 58021400\_ 58022045\_ 58021400\_ 58021641\_ 58021904\_ 58022045\_0.0,0.0 | 0.244 | Up | 0.00049383 | 0.021792868 |
| MITD1 | RI | ENSG00000158411\_MITD1\_2\_-\_ 99785725\_ 99786073\_ 99785725\_ 99785933\_ 99786012\_ 99786073\_1.0,0.641 | -0.579 | Down | 0.00054074 | 0.023190847 |
| GGA3 | RI | ENSG00000125447\_GGA3\_17\_-\_ 73236422\_ 73237138\_ 73236422\_ 73236493\_ 73236892\_ 73237138\_0.205,0.341 | -0.249 | Down | 0.00068183 | 0.025698707 |
| GMPPA | RI | ENSG00000144591\_GMPPA\_2\_+\_220370179\_220370483\_220370179\_220370277\_220370416\_220370483\_1.0,1.0 | -0.207 | Down | 0.00074717 | 0.025698707 |
| ZFC3H1 | RI | ENSG00000133858\_ZFC3H1\_12\_-\_ 72050122\_ 72051081\_ 72050122\_ 72050343\_ 72050664\_ 72051081\_1.0,1.0 | -0.353 | Down | 0.00075113 | 0.025698707 |
| SCARB1 | RI | ENSG00000073060\_SCARB1\_12\_-\_125267228\_125271049\_125267228\_125267357\_125270986\_125271049\_1.0,1.0 | -0.342 | Down | 0.00067127 | 0.025698707 |
| COMTD1 | RI | ENSG00000165644\_COMTD1\_10\_-\_ 76994695\_ 76994936\_ 76994695\_ 76994750\_ 76994817\_ 76994936\_1.0,0.643 | -0.677 | Down | 0.00071795 | 0.025698707 |
| DRG2 | RI | ENSG00000108591\_DRG2\_17\_+\_ 18002330\_ 18003749\_ 18002330\_ 18002391\_ 18003676\_ 18003749\_1.0,0.207 | 0.396 | Up | 0.00071099 | 0.025698707 |
| SBNO2 | RI | ENSG00000064932\_SBNO2\_19\_-\_ 1109133\_ 1109597\_ 1109133\_ 1109210\_ 1109504\_ 1109597\_1.0,1.0 | -0.286 | Down | 0.0007396 | 0.025698707 |
| PRPF39 | RI | ENSG00000185246\_PRPF39\_14\_+\_ 45565626\_ 45565961\_ 45565626\_ 45565695\_ 45565798\_ 45565961\_1.0,1.0 | -0.283 | Down | 0.00069634 | 0.025698707 |
| CDK5RAP3 | RI | ENSG00000108465\_CDK5RAP3\_17\_+\_ 46048487\_ 46048773\_ 46048487\_ 46048518\_ 46048727\_ 46048773\_0.062,0.166 | 0.334 | Up | 0.00079578 | 0.026923852 |
| SNHG14 | RI | ENSG00000224078\_SNHG14\_15\_+\_ 25349005\_ 25351441\_ 25349005\_ 25349117\_ 25351310\_ 25351441\_1.0,1.0 | -0.56 | Down | 0.00127796 | 0.038150771 |
| C19orf24 | RI | ENSG00000228300\_C19orf24\_19\_+\_ 1276091\_ 1277298\_ 1276091\_ 1276672\_ 1277181\_ 1277298\_1.0,1.0 | -0.33 | Down | 0.00147825 | 0.041599891 |
| USE1 | RI | ENSG00000053501\_USE1\_19\_+\_ 17326610\_ 17326879\_ 17326610\_ 17326660\_ 17326800\_ 17326879\_0.599,0.199 | -0.348 | Down | 0.00159587 | 0.043778679 |
| GALT | RI | ENSG00000213930\_GALT\_9\_+\_ 34647085\_ 34647958\_ 34647085\_ 34647255\_ 34647828\_ 34647958\_1.0,0.854 | -0.227 | Down | 0.00167546 | 0.045551509 |
| FAM133B | RI | ENSG00000234545\_FAM133B\_7\_-\_ 92206968\_ 92207496\_ 92206968\_ 92206990\_ 92207463\_ 92207496\_0.312,0.476 | 0.606 | Up | 0.00189848 | 0.0489905 |
| C11orf65 | MXE | ENSG00000166323\_C11orf65\_11\_-\_108277822\_108277876\_108302472\_108302565\_108277489\_108277690\_108332205 | -1 | Down | 3.95E-10 | 6.88E-07 |
| AC093838.4 | MXE | ENSG00000152117\_AC093838.4\_2\_+\_132254782\_132254866\_132256439\_132256526\_132250648\_132250713\_132257776 | 0.835 | Up | 4.84E-10 | 6.88E-07 |
| TBCD | MXE | ENSG00000141556\_TBCD\_17\_+\_ 80851422\_ 80851508\_ 80863811\_ 80863929\_ 80842020\_ 80842078\_ 80869633 | -0.93 | Down | 1.76E-10 | 6.88E-07 |
| SNX10 | MXE | ENSG00000086300\_SNX10\_7\_+\_ 26393676\_ 26393804\_ 26396626\_ 26396747\_ 26386039\_ 26386086\_ 26400594 | 0.873 | Up | 7.26E-10 | 7.75E-07 |
| HNF4G | MXE | ENSG00000164749\_HNF4G\_8\_+\_ 76456045\_ 76456214\_ 76459821\_ 76459916\_ 76402323\_ 76402443\_ 76463622 | -0.872 | Down | 2.72E-09 | 2.32E-06 |
| IKBKB | MXE | ENSG00000104365\_IKBKB\_8\_+\_ 42129600\_ 42129723\_ 42146151\_ 42146246\_ 42128835\_ 42128987\_ 42147673 | -0.799 | Down | 8.76E-09 | 6.24E-06 |
| PAQR3 | MXE | ENSG00000163291\_PAQR3\_4\_-\_ 79843294\_ 79843575\_ 79843982\_ 79844137\_ 79841687\_ 79841835\_ 79845010 | -0.577 | Down | 1.11E-08 | 6.79E-06 |
| RNF121 | MXE | ENSG00000137522\_RNF121\_11\_+\_ 71673197\_ 71673335\_ 71689131\_ 71689281\_ 71671795\_ 71671937\_ 71693806 | 0.855 | Up | 1.37E-08 | 7.30E-06 |
| EGF | MXE | ENSG00000138798\_EGF\_4\_+\_110920834\_110921002\_110925660\_110925778\_110915888\_110916036\_110932357 | -0.563 | Down | 8.86E-08 | 4.20E-05 |
| TMEM87A | MXE | ENSG00000103978\_TMEM87A\_15\_-\_ 42523389\_ 42523458\_ 42524041\_ 42524113\_ 42520909\_ 42521018\_ 42525410 | 0.218 | Up | 9.88E-08 | 4.22E-05 |
| SFMBT1 | MXE | ENSG00000163935\_SFMBT1\_3\_-\_ 52988332\_ 52988427\_ 53003116\_ 53003274\_ 52977368\_ 52977609\_ 53077151 | 0.35 | Up | 2.15E-07 | 8.34E-05 |
| TBC1D1 | MXE | ENSG00000065882\_TBC1D1\_4\_+\_ 38053519\_ 38053681\_ 38054726\_ 38054846\_ 38051238\_ 38051519\_ 38055819 | -0.641 | Down | 3.00E-07 | 0.000106587 |
| FAM86C1 | MXE | ENSG00000158483\_FAM86C1\_11\_+\_ 71502784\_ 71502865\_ 71504425\_ 71504527\_ 71500828\_ 71500891\_ 71507062 | 0.799 | Up | 3.57E-07 | 0.000108713 |
| CDKL3 | MXE | ENSG00000006837\_CDKL3\_5\_-\_133685939\_133686118\_133695587\_133695782\_133657481\_133657594\_133706688 | 0.538 | Up | 3.46E-07 | 0.000108713 |
| CD99L2 | MXE | ENSG00000102181\_CD99L2\_X\_-\_149984751\_149984928\_149996778\_149998077\_149984479\_149984551\_149999703 | 0.848 | Up | 1.00E-06 | 0.000285628 |
| KLC4 | MXE | ENSG00000137171\_KLC4\_6\_+\_ 43039304\_ 43039357\_ 43039589\_ 43039660\_ 43039012\_ 43039112\_ 43039884 | -0.622 | Down | 1.30E-06 | 0.000339195 |
| SS18 | MXE | ENSG00000141380\_SS18\_18\_-\_ 23660268\_ 23660387\_ 23664015\_ 23664139\_ 23658039\_ 23658124\_ 23667464 | -0.534 | Down | 1.50E-06 | 0.000355586 |
| PICK1 | MXE | ENSG00000100151\_PICK1\_22\_+\_ 38466844\_ 38466898\_ 38467688\_ 38467751\_ 38465039\_ 38465129\_ 38468483 | 0.485 | Up | 2.24E-06 | 0.000503036 |
| PGAP3 | MXE | ENSG00000161395\_PGAP3\_17\_-\_ 37830869\_ 37830932\_ 37840849\_ 37841002\_ 37827374\_ 37829119\_ 37842174 | 0.28 | Up | 7.12E-06 | 0.001382047 |
| LGMN | MXE | ENSG00000100600\_LGMN\_14\_-\_ 93207406\_ 93207524\_ 93208049\_ 93208204\_ 93198993\_ 93199160\_ 93214833 | 0.524 | Up | 8.86E-06 | 0.001645266 |
| SS18 | MXE | ENSG00000141380\_SS18\_18\_-\_ 23658974\_ 23659110\_ 23660268\_ 23660387\_ 23658039\_ 23658124\_ 23667464 | 0.51 | Up | 1.04E-05 | 0.001858621 |
| SS18 | MXE | ENSG00000141380\_SS18\_18\_-\_ 23658974\_ 23659089\_ 23660268\_ 23660387\_ 23658039\_ 23658124\_ 23667464 | 0.498 | Up | 1.58E-05 | 0.002591643 |
| TOP3B | MXE | ENSG00000100038\_TOP3B\_22\_-\_ 22322990\_ 22323147\_ 22326248\_ 22326323\_ 22321974\_ 22322088\_ 22326983 | -0.375 | Down | 1.70E-05 | 0.002680038 |
| ANKRD30A | MXE | ENSG00000148513\_ANKRD30A\_10\_+\_ 37442499\_ 37442590\_ 37478394\_ 37478485\_ 37440987\_ 37441049\_ 37481991 | -0.365 | Down | 1.91E-05 | 0.002906826 |
| MIS18BP1 | MXE | ENSG00000129534\_MIS18BP1\_14\_-\_ 45701935\_ 45702023\_ 45705016\_ 45705147\_ 45700343\_ 45700501\_ 45706850 | -0.231 | Down | 2.63E-05 | 0.003735758 |
| CERS4 | MXE | ENSG00000090661\_CERS4\_19\_+\_ 8275589\_ 8275746\_ 8315927\_ 8316133\_ 8274209\_ 8274378\_ 8319382 | 0.472 | Up | 2.94E-05 | 0.004041851 |
| HDAC11 | MXE | ENSG00000163517\_HDAC11\_3\_+\_ 13524963\_ 13525064\_ 13543370\_ 13543433\_ 13522745\_ 13522894\_ 13544383 | -0.468 | Down | 3.30E-05 | 0.004406354 |
| BBS1 | MXE | ENSG00000174483\_BBS1\_11\_+\_ 66281876\_ 66282149\_ 66283010\_ 66283057\_ 66278675\_ 66278710\_ 66283163 | -0.224 | Down | 3.99E-05 | 0.005004718 |
| OSGEPL1 | MXE | ENSG00000128694\_OSGEPL1\_2\_-\_190615275\_190615382\_190617378\_190617450\_190611385\_190611894\_190617574 | -0.247 | Down | 5.88E-05 | 0.00697228 |
| USP13 | MXE | ENSG00000058056\_USP13\_3\_+\_179399665\_179399791\_179408028\_179408089\_179370837\_179371181\_179418795 | -0.25 | Down | 8.55E-05 | 0.009363459 |
| RNF115 | MXE | ENSG00000121848\_RNF115\_1\_+\_145646278\_145646469\_145648015\_145648067\_145646114\_145646173\_145650482 | 0.665 | Up | 8.97E-05 | 0.009577285 |
| CCDC14 | MXE | ENSG00000175455\_CCDC14\_3\_-\_123665649\_123666166\_123667537\_123667632\_123663695\_123663837\_123667742 | -0.235 | Down | 0.00010665 | 0.010588157 |
| UBE2J2 | MXE | ENSG00000160087\_UBE2J2\_1\_-\_ 1200162\_ 1200210\_ 1201477\_ 1201670\_ 1198725\_ 1198766\_ 1203241 | -0.223 | Down | 0.00012462 | 0.010639683 |
| PPAPDC1B | MXE | ENSG00000147535\_PPAPDC1B\_8\_-\_ 38125414\_ 38125478\_ 38125888\_ 38125925\_ 38124784\_ 38124909\_ 38126399 | -0.203 | Down | 0.00012376 | 0.010639683 |
| TTC23 | MXE | ENSG00000103852\_TTC23\_15\_-\_ 99785593\_ 99785715\_ 99789826\_ 99790004\_ 99768737\_ 99768937\_ 99791359 | -0.689 | Down | 0.00011892 | 0.010639683 |
| ARNTL2 | MXE | ENSG00000029153\_ARNTL2\_12\_+\_ 27523061\_ 27523163\_ 27529278\_ 27529320\_ 27521194\_ 27521345\_ 27533179 | -0.274 | Down | 0.00014085 | 0.011563592 |
| TAB3 | MXE | ENSG00000157625\_TAB3\_X\_-\_ 30861082\_ 30861166\_ 30864667\_ 30864761\_ 30852167\_ 30852269\_ 30870894 | -0.259 | Down | 0.0001479 | 0.011854621 |
| PRR5 | MXE | ENSG00000186654\_PRR5\_22\_+\_ 45110470\_ 45110551\_ 45121123\_ 45121172\_ 45098371\_ 45098488\_ 45122456 | 0.282 | Up | 0.00014995 | 0.011854621 |
| RANBP9 | MXE | ENSG00000010017\_RANBP9\_6\_-\_ 13644776\_ 13644961\_ 13652890\_ 13652913\_ 13641430\_ 13641539\_ 13657340 | 0.294 | Up | 0.00016636 | 0.012244845 |
| ZBTB8OS | MXE | ENSG00000176261\_ZBTB8OS\_1\_-\_ 33099245\_ 33099328\_ 33099551\_ 33099673\_ 33093108\_ 33093145\_ 33116029 | 0.205 | Up | 0.00018042 | 0.012837124 |
| MARCH8 | MXE | ENSG00000165406\_MARCH8\_10\_-\_ 45959686\_ 45959775\_ 45984814\_ 45984865\_ 45956678\_ 45956859\_ 46028557 | -0.331 | Down | 0.00017938 | 0.012837124 |
| TBC1D19 | MXE | ENSG00000109680\_TBC1D19\_4\_+\_ 26641762\_ 26641809\_ 26661218\_ 26661329\_ 26640392\_ 26640456\_ 26667954 | 0.317 | Up | 0.00019791 | 0.013850415 |
| DBR1 | MXE | ENSG00000138231\_DBR1\_3\_-\_137882619\_137882700\_137885922\_137886147\_137882190\_137882336\_137888948 | -0.299 | Down | 0.00020321 | 0.013991929 |
| HDAC8 | MXE | ENSG00000147099\_HDAC8\_X\_-\_ 71787738\_ 71787880\_ 71788603\_ 71788734\_ 71715005\_ 71715118\_ 71791906 | -0.274 | Down | 0.00021112 | 0.014219938 |
| TRDMT1 | MXE | ENSG00000107614\_TRDMT1\_10\_-\_ 17203481\_ 17203547\_ 17210839\_ 17210916\_ 17202303\_ 17202373\_ 17216549 | 0.426 | Up | 0.00025639 | 0.01644909 |
| DENND2C | MXE | ENSG00000175984\_DENND2C\_1\_-\_115164515\_115164686\_115165607\_115165720\_115161006\_115161103\_115166127 | 0.364 | Up | 0.00025816 | 0.01644909 |
| PUS7 | MXE | ENSG00000091127\_PUS7\_7\_-\_105111134\_105111295\_105112578\_105112640\_105108783\_105108910\_105121498 | -0.229 | Down | 0.00030585 | 0.018777486 |
| MGLL | MXE | ENSG00000074416\_MGLL\_3\_-\_127413817\_127414033\_127429418\_127429508\_127410959\_127411166\_127439895 | -0.46 | Down | 0.00035038 | 0.020774724 |
| C20orf96 | MXE | ENSG00000196476\_C20orf96\_20\_-\_ 256608\_ 256727\_ 257433\_ 257520\_ 251503\_ 251908\_ 257684 | 0.248 | Up | 0.00036922 | 0.021591902 |
| PTPN20B | MXE | ENSG00000183675\_PTPN20B\_10\_-\_ 48754797\_ 48755132\_ 48774224\_ 48774376\_ 48751806\_ 48752022\_ 48792686 | 0.33 | Up | 0.00042248 | 0.023371924 |
| UBE2F | MXE | ENSG00000184182\_UBE2F\_2\_+\_238881733\_238881867\_238925207\_238925275\_238875721\_238875774\_238933982 | -0.226 | Down | 0.00043858 | 0.023403865 |
| ZNF415 | MXE | ENSG00000170954\_ZNF415\_19\_-\_ 53625656\_ 53625865\_ 53625914\_ 53625996\_ 53619565\_ 53619686\_ 53636108 | -0.258 | Down | 0.00043849 | 0.023403865 |
| TMEM164 | MXE | ENSG00000157600\_TMEM164\_X\_+\_109246728\_109247392\_109310574\_109310624\_109246322\_109246384\_109352307 | -0.286 | Down | 0.00047197 | 0.024571047 |
| ASAP1 | MXE | ENSG00000153317\_ASAP1\_8\_-\_131249167\_131249240\_131370262\_131370389\_131226801\_131226947\_131414130 | -0.249 | Down | 0.00053309 | 0.026901602 |
| IST1 | MXE | ENSG00000182149\_IST1\_16\_+\_ 71957190\_ 71957283\_ 71958675\_ 71958720\_ 71956376\_ 71956583\_ 71961516 | 0.24 | Up | 0.00056452 | 0.027385756 |
| ZFAND2B | MXE | ENSG00000158552\_ZFAND2B\_2\_+\_220072608\_220072760\_220072977\_220073070\_220072369\_220072501\_220073147 | -0.35 | Down | 0.00057947 | 0.027795101 |
| SLC30A6 | MXE | ENSG00000152683\_SLC30A6\_2\_+\_ 32431954\_ 32432002\_ 32434561\_ 32434630\_ 32429658\_ 32429761\_ 32445281 | -0.248 | Down | 0.00064298 | 0.02983553 |
| SRSF11 | MXE | ENSG00000116754\_SRSF11\_1\_+\_ 70696777\_ 70696886\_ 70697541\_ 70697658\_ 70694104\_ 70694238\_ 70697950 | 0.339 | Up | 0.00070528 | 0.032030422 |
| OVGP1 | MXE | ENSG00000085465\_OVGP1\_1\_-\_111963897\_111964083\_111964186\_111964295\_111962231\_111962348\_111965548 | 0.279 | Up | 0.00073368 | 0.032626054 |
| TNRC6A | MXE | ENSG00000090905\_TNRC6A\_16\_+\_ 24741573\_ 24741621\_ 24788253\_ 24788679\_ 24741033\_ 24741167\_ 24800552 | 0.295 | Up | 0.0007321 | 0.032626054 |
| SUN1 | MXE | ENSG00000164828\_SUN1\_7\_+\_ 888054\_ 888252\_ 889559\_ 889670\_ 882977\_ 883157\_ 891020 | 0.237 | Up | 0.00075666 | 0.033300692 |
| BOK | MXE | ENSG00000176720\_BOK\_2\_+\_242501762\_242501891\_242509539\_242509703\_242498135\_242498408\_242511711 | 0.21 | Up | 0.00087645 | 0.035634117 |
| BORA | MXE | ENSG00000136122\_BORA\_13\_+\_ 73303063\_ 73303231\_ 73305418\_ 73305525\_ 73302060\_ 73302145\_ 73309097 | -0.401 | Down | 0.00108846 | 0.040760108 |
| GUK1 | MXE | ENSG00000143774\_GUK1\_1\_+\_228333713\_228333768\_228334542\_228334639\_228333211\_228333325\_228335315 | 0.291 | Up | 0.00111033 | 0.041217334 |
| ADAM15 | MXE | ENSG00000143537\_ADAM15\_1\_+\_155033893\_155033965\_155034379\_155034593\_155033238\_155033308\_155034720 | -0.433 | Down | 0.00126144 | 0.0449702 |
| ICA1L | MXE | ENSG00000163596\_ICA1L\_2\_-\_203653552\_203653810\_203661612\_203661687\_203650640\_203650730\_203676468 | 0.243 | Up | 0.00124726 | 0.0449702 |
| DAG1 | MXE | ENSG00000173402\_DAG1\_3\_+\_ 49508397\_ 49508482\_ 49530255\_ 49530406\_ 49507564\_ 49507866\_ 49547851 | 0.253 | Up | 0.0012641 | 0.0449702 |
| XPNPEP1 | MXE | ENSG00000108039\_XPNPEP1\_10\_-\_111652769\_111652833\_111667448\_111667573\_111651479\_111651584\_111674768 | 0.206 | Up | 0.00127955 | 0.045143644 |
| ZNF467 | MXE | ENSG00000181444\_ZNF467\_7\_-\_149466178\_149466289\_149467528\_149467645\_149461451\_149463328\_149468087 | 0.239 | Up | 0.00135433 | 0.046252954 |
| SLC3A2 | MXE | ENSG00000168003\_SLC3A2\_11\_+\_ 62649976\_ 62650090\_ 62650138\_ 62650279\_ 62649170\_ 62649538\_ 62650379 | -0.285 | Down | 0.00138134 | 0.046432492 |
| TMEM241 | MXE | ENSG00000134490\_TMEM241\_18\_-\_ 20936557\_ 20936627\_ 20950179\_ 20950225\_ 20889643\_ 20889708\_ 20951385 | 0.365 | Up | 0.00137078 | 0.046432492 |

**Supplementary Table 12: Alternatively spliced events list.** Full list of alternative splicing events. Table indicates whether these events occurred either more (up) or less (down) frequently in LNCaP95 PC cells treated with JMJD6 siRNA compared to non-targeting control siRNA. SE = skipped exon, A3SS = alternative 3’ splice site, A5SS = alternative 5’ splice site, RI = retained intron, MXE = mutually exclusive exons.