|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Gene, exon and control | Splicing inclusion in prostate | | Protein Function | Function of splice | References |
| *ARFGAP2*  ESRP2 activates exon 6  inclusion | More splicing inclusion in tumour | | ADP Ribosylation Factor GTPase Activating Protein 2 |  |  |
| CTTND1  ESRP2 represses exon 2 and 3 inclusion | Not differentially spliced in tumours | | May activate WNT signalling through binding transcriptional repressor ZBTB33, and may bind and regulate adhesion properties of cadherins. |  | ([Schackmann, Tenhagen, van de Ven, & Derksen, 2013](#_ENREF_76)) |
| *ENAH*  ESRP2 activates exon 11A  inclusion | More splicing inclusion in tumour | | ENAH controls actin nucleation and polymerisation, modulating cell motility and adhesion | ENAH exon 11A inclusion produces an isoform called MENAα prognostic for patient survival in lung cancer | ([Bria, Di Modugno, Sperduti, Iapicca, Visca, Alessandrini, Antoniani, Pilotto, Ludovini, Vannucci, Bellezza, Sidoni, Tortora, Radisky, Crino, Cognetti, Facciolo, Mottolese, Milella, & Nistico, 2014](#_ENREF_10); [Urbanski, Leclair, & Anczukow, 2018](#_ENREF_85)) |
| *EPN3* ESRP2 activates exon 4  inclusion | Not differentially spliced in tumours | | Epsin3 has roles in apoptosis and EMT | Exon 4 includes peptide information for UIMC domain | ([Mori et al., 2017](#_ENREF_53); [Y. Wang et al., 2018](#_ENREF_94)) |
| *FN1* ESRP2 represses exon 25  inclusion | Not differentially expressed in tumours | | Involved in cell adhesion and maintenance of cell shape |  |  |
| *FNIP1*  ESRP2 activates exon 7 inclusion (also controlled by MBLN and RBFOX) | More splicing inclusion in tumour | | Binds to tumour suppressor folliculin and HSP90. Modulates the AMPK and target of rapamycin signaling pathways |  | ([Hasumi et al., 2015](#_ENREF_30); [Sager et al., 2018](#_ENREF_73); [Venables et al., 2013](#_ENREF_90)) |
| *GRHL1*  ESRP2 activates exon 5  inclusion | Not differentially expressed in tumours | | Transcription factor important for iPSCs | Exon 5 inclusion required for GRHL1 protein function as a transcription factor | ([Cieply, Park, Nakauka-Ddamba, Bebee, Guo, Shang, Lengner, Xing, & Carstens, 2016](#_ENREF_16)) |
| *KIF13A*  exon 25  ESRP2 represses  Inclusion  (exon activated by MBLN1) | More skipping in tumour | | Microtubule motor that positions endosomes |  | ([Venables, Lapasset, Gadea, Fort, Klinck, Irimia, Vignal, Thibault, Prinos, Chabot, Abou Elela, Roux, Lemaitre, & Tazi, 2013](#_ENREF_90)) |
| RALGPS2  esrp2 activates exon 15 | More splicing inclusion in tumour | | Ras-specific guanine nucleotide-releasing factor |  | ([A et al., 2016](#_ENREF_1)) |
| *SLC37A2* ESRP2 activates exon 18 | Not differentially spliced in tumour versus normal | Sugar phosphate exchanger 2 | |  |
| TCIRG  ESRP2 represses exon 19 | Not differentially spliced in tumour versus normal | T cell immune regulator 1, ATPase H+ transporting V0 subunit a3 | |  |  |

Figure 5 – Source Data 3