**Table S3: Spliceosomal and NTC complex associated genes/proteins (from Koncz *et al*., 2012) changing in expression, alternative splicing, and/or phosphorylation in *prp4ka*.** For more details see supplemental tables S4-S9. A3: alternative 3’ splice site; A5: alternative 5’ splice site; EI: exitron; ES: exon skipping; IR: intron retention.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Protein name** | **Gene ID** | **Differential gene expression** | **Alternative splicing** | **Gain/loss of phosphorylation** | **Protein annotation according to Koncz *et al*., 2012** |
| **Sm core proteins** | | | | | |
| SmB/B’ | AT4G20440 | - | A5 x 2 | - | atSmB-b Small nuclear ribonucleoprotein |
| SmF | AT2G14285 | - | IR x 2 | - | Small nuclear ribonucleoprotein family protein |
| **LSm core proteins** | | | | | |
| LSm1B | AT3G14080 | up-regulated | IR | - | atLSM1b U6 snRNA-associated Sm-like protein |
| LSm3A | AT1G21190 | - | IR | - | atLSM3a U6 snRNA-associated Sm-like protein |
| **U1 snRNP** | | | | |  |
| U1-70K | AT3G50670 | - | A5, IR | - | atU1-70K |
| AtLUC7rl | AT5G51410 | - | A5 | - | atLuc7-rl LUC7 N\_terminus domain-containing protein |
| AtPRP39a | AT1G04080 | up-regulated | A5 x2, IR x 4 | - | atPrp39a late flowering |
| **U1 snRNP related** | | | | | |
| AtPRP40b | AT3G19670 | up-regulated | A3 x 2, A5, IR x 3 | - | AtPRP40B |
| **Splice site selection** | | | | | |
| AtU2AF65b | AT1G60900 | - | ES, IR x 2 | - | atU2AF65b/AULa Splicing factor U2af large subunit B |
| AtSF1 | AT5G51300 | - | - | gain x 2 | atSF1/BBP splicing factor |
| AtPTB1 | AT3G01150 | up-regulated | ES | - | atPTB2 polypyrimidine tract-binding protein 1 |
| **17S U2 snRNP** | | | | | |
| AtU2B"a | AT1G06960 | - | IR x 2 | - | atU2B”a |
| AtSF3b150 | AT4G21660 | - | A3, IR | - | atSF3b150 splicing factor 3B subunit 2 |
| **17S U2 associated** | | | | | |
| AtSPF30 | AT2G02570 | - | A3, IR | - | atSPF30 survival of motor neuron-related splicing factor 30 |
| atSR140-2 | AT5G10800 | up-regulated | - | - | atSR140-2 |
| **U4/U6 snRNP** | | | | | |
| AtSAP60 | AT2G41500 | - | A3 | - | atSAP60 LACHESIS (LIS); EMB2776 |
| **U4/U6.U5 tri snRNP** | | | | | |
| AtTri65a | AT4G22350 | - | IR | - | atTri65a U4/U6.U5 tri-snRNP-associated protein 2 |
| AtSRL1 | AT5G37370 | - | A3, EI | - | ATSRL1, pre-mRNA-splicing factor 38B |
| **NTC-associated** | | | | | |
| AtAD-002 | AT3G13200 | - | - | gain | atAD-002 EMBRYO DEFECTIVE 2769 |
| MAC5C | AT5G07060 | up-regulated | - | - | atECM2-2 zinc finger CCCH domain-containing protein 53 |
| AtCypE1a/CYP2 | AT2G21130 | down-regulated | - | - | atCypE1a/CYP2 Peptidyl-prolyl cis-trans isomerase CYP19-2 |
| AtCypE2b/ROC5 | AT4G34870 | - | - | loss | atCypE2b/ROC5 |
| AtPRP40C | AT3G19840 | - | A5 | - | transcription elongation regulator 1; PRP40C |
| AtPRP2a/ESP3 | AT1G32490 | up-regulated | - | - | atPRP2a ESP3 ENHANCED SILENCING PHENOTYPE 3 DHX16 |
| AtPRP2-1b | AT2G35340 | up-regulated | - | - | atPRP2b maternal effect embryo arrest 29; MEE29 |
| AtMGC23918 | AT3G05070 | - | - | loss | Cwf18 coiled-coil domain-containing protein 12 |
| **Second step factors** | | | | | |
| AtPRP22-2/RID1 | AT1G26370 | - | IR | - | atPrp22-2 helicase associated domain-containing protein |
| **SR and SR-related proteins** | | | | | |
| At-SCL33 | AT1G55310 | - | A5, IR | - | atSR33/atSCL33 |
| At-SCL30a | AT3G13570 | - | - | loss | atSR33/atSCL30a |
| At-SCL30 | AT3G55460 | - | - | loss | atSCL30 SC35-like splicing factor 30 |
| At-SR34 | AT1G02840 | - | A3, A5 | - | SR1, ATSR34 Pre-mRNA-splicing factor SF2 |
| At-SR34a | AT3G49430 | up-regulated | A3, ES, IR | - | AtSR34a- putative Pre-mRNA splicing factor SF2 |
| At-RSZ22 | AT4G31580 | - | IR | - | atRSZp22/atSRZ22 |
| At-RSZ21 | AT1G23860 | - | IR | - | atRSzp21/atSRZ21 |
| At-RS2Z32 | AT3G53500 | - | IR | - | RSZ32 RNA recognition motif and CCHC-type zinc finger domain |
| At-RS31a | AT2G46610 | up-regulated | IR x 2 | - | atRSp32 |
| At-RS31 | AT3G61860 | up-regulated | A3 | - | atRSp31 |
| At-RS41 | AT5G52040 | - | - | loss | atRSp41 |
| At-RS40 | AT4G25500 | - | - | gain x 2 | atRSp40/atRSP35 |
| SR45a | AT1G07350 | up-regulated | A3, IR x 3 | - | atTra/SFRS1 RNA recognition motif-containing protein |
|  | AT4G35785 | - | A3 | - | RNA-binding (RRM/RBD/RNP motifs) family protein |
| AtSRm102 | AT2G29210 | - | A3 | - | serine/arginine repetitive matrix protein 1 |
| **SR protein kinase** | | | | | |
| AFC1/AME2 | AT3G53570 | - | IR | - | FC1, CLK/STY PROTEIN KINASE, FUS3-complementing gene 1 |
| AFC2/AME1 | AT4G24740 | - | A3, IR | - | FC2, CLK/STY PROTEIN KINASE, FUS3-complementing gene 2 |
| AFC3/AME3 | AT4G32660 | - | IR | - | AME3 serine/threonine-protein kinase AFC3 |
| **Glycine-rich RNA binding proteins** | | | | | |
| AtGRP2 | AT4G13850 | - | IR | - | atGRBP1c GLYCINE-RICH RNA-BINDING PROTEIN 2; GR-RBP 2 |
| AtGRP7/CCR2 | AT2G21660 | - | A3 | - | AtGRP7/atGRBP3a CCR2, GLYCINE-RICH RNA-BINDING PROTEIN 7; GR-RBP7; GRP7 |
| AtGRP8/CCR1 | AT4G39260 | - | A5, EI, IR | - | AtGRP8/atGRPB3b ATGRP8; CCR1 |
| **hnRNP family** | | | | | |
| AtRNPA/B\_3 | AT5G55550 | up-regulated | IR | - | AtRNPA/B\_3 RNA recognition motif-containing protein |
| AtRNPA/B\_5 | AT5G47620 | up-regulated | IR | - | AtRNPA/B\_5 RNA recognition motif-containing protein |
| AtRNPA/B\_6 | AT3G07810 | - | - | gain x 2 | RNA recognition motif-containing protein |
| AtRNPA/B\_8a | AT5G40490 | - | EI | - | AtRNPA/B\_8a heterogeneous nuclear ribonucleoprotein A1/A3 |
| AtRNP\_N1 | AT3G13224 | - | - | gain | RNA recognition motif-containing |
| FLK | AT3G04610 | up-regulated | IR x 2 | gain | FLK; flowering locus KH domain, at-hnRNP-E |
| TAF15 | AT1G50300 | - | A5 | - | at-hnRNP-P TBP-associated factor 15 |
|  | AT5G28390 | up-regulated | - | - | RNA recognition motif-containing protein |
| AtBRN1 | AT4G03110 | up-regulated | - | - | RBP-DR1; RNA-binding protein-defense related 1; AtBRN1 |
| AtBRN2 | AT1G03457 | - | IR | - | AtCUG-BP2 RNA recognition motif-containing protein |
| AtRBP47C | AT1G47490 | up-regulated | IR | - | AtRBP47c |
| AtRBP47C’ | AT1G47500 | up-regulated | IR | - | AtRBP47c’ |
| **mRNA binding proteins** | | | | | |
| SE | AT2G27100 | - | - | gain | SERRATE |
| **A complex associated** | | | | | |
| SUA | AT3G54230 | up-regulated | IR x 3 | - | Suppressor of abi3-5 (SUA) |
| CDKG1 | AT5G63370 | - | A3 | - | cell division cycle 2-like protein |
| AtSF4 | AT3G52120 | up-regulated | IR x 2 | - | Splicing factor 4-like protein |
| **B complex associated** | | | | | |
| AtFBP21 | AT1G49590 | - | ES, IR | - | atFBP21 |
|  | AT3G58510 | - | - | loss | DEAD-box ATP-dependent RNA helicase 11 |
| **Recruited prior to Bact complex** | | | | | |
| atNPC2b | AT2G16940 | up-regulated | - | - | splicing factor, CC1-like protein |
| PRP4KB | AT1G13350 | - | A5 x 3, ES | - | protein kinase domain-containing protein |
| **Abundant first in C complex** | | | | | |
| HSP70-3 | AT3G09440 | - | IR | - | protein heat shock protein 70-3 |
| XCT | AT2G21150 | - | IR | - | protein XAP5 CIRCADIAN TIMEKEEper (XCT) |
| CDKG1 | AT5G63370 | - | A3 | - | cell division cycle 2-like protein |
| **C complex associated** | | | | | |
|  | AT2G20330 | - | - | loss | WD40 domain-containing protein |
| **EJC/mRNP** | | | | | |
| AtUAP56b | AT5G11170 | up-regulated | A3, A5, IR x 2 | - | atUAP56b DEAD-box ATP-dependent RNA helicase 56 |
| **TREX complex** | | | | | |
| ALY2/THO4B | AT5G02530 | - | - | loss | atALY-1a THO complex subunit 4 |
| **Polyadenylation-cleavage complex** | | | | | |
|  | | | | | |
| CPSF160 | AT5G51660 | up-regulated | A5, IR x 2 | - | CPSF160 |
| CPSF73-I | AT1G61010 | - | ES, IR | - | CPSF73-I |
| **Exosome** | | | | | |
| RRP46 | AT3G46210 | up-regulated | A5 x 3, IR x 7 | - | exosome complex component RRP46 |
| RRP6 | AT5G35910 | up-regulated | A3, IR x 2 | - | Exosome complex exonuclease RRP6 |
|  | AT1G54440 | up-regulated | - | - | RRP6-like protein 1 |