

Supplemental Figures

A

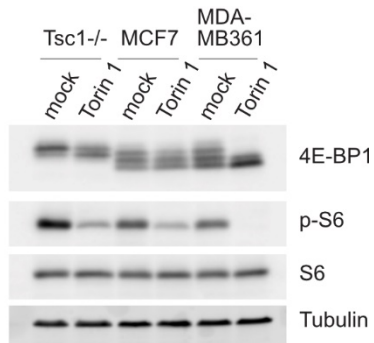


Figure S1. Cellular mTOR activity was different in *Tsc1*^{-/-} MEFs, MCF7, and MDA-MB361. (a) Western blotting of downstream targets of mTOR (4E-BP1 and S6) in *Tsc1*^{-/-} MEFs with DMSO or Torin 1 treatment (50nM, 24hr), MCF7 and MDA-MB361 cells with DMSO or Torin 1 treatment (100nM, 24hr).

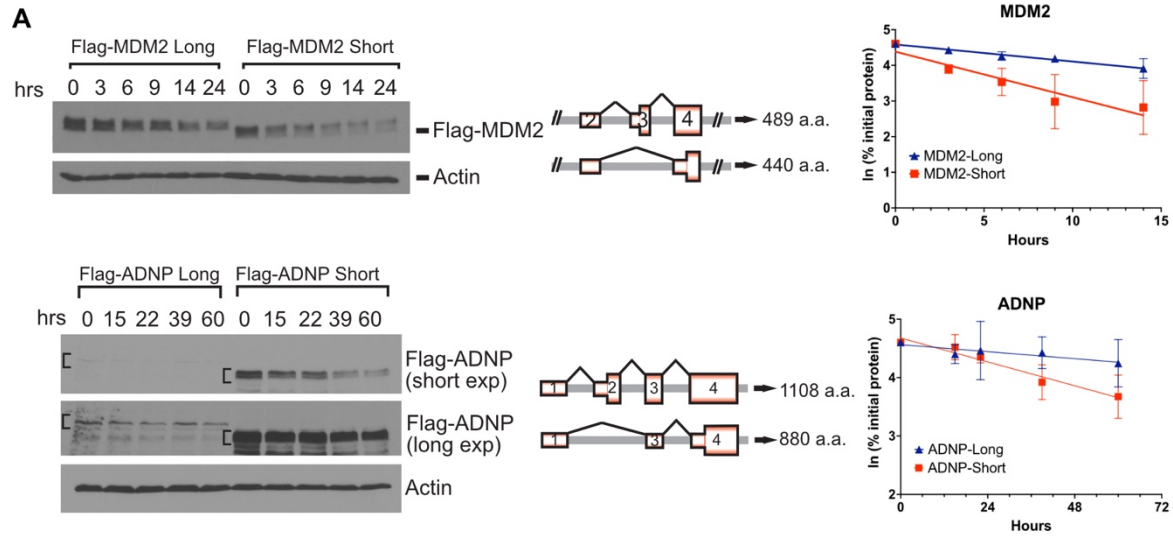


Figure S2. mTOR-driven exon skipping in MDM2 and ADNP showed differential protein stability trend. (a) Analysis of protein isoform stability by western blotting. Flag-tagged MDM2 and ADNP protein isoforms were transiently expressed in HEK293 and the difference in their stabilities was monitored in the presence of cycloheximide (30 ug/ml) for the indicated time points. Actin was used as a loading control. The protein level was quantified using densitometry in ImageStudioLite software and normalized to the actin level. Mean (SD) from two technical repeats were subjected to two-tailed Student's t-test for statistical analysis. $P < 0.05$ as significant (*). n.s. denotes no significance.

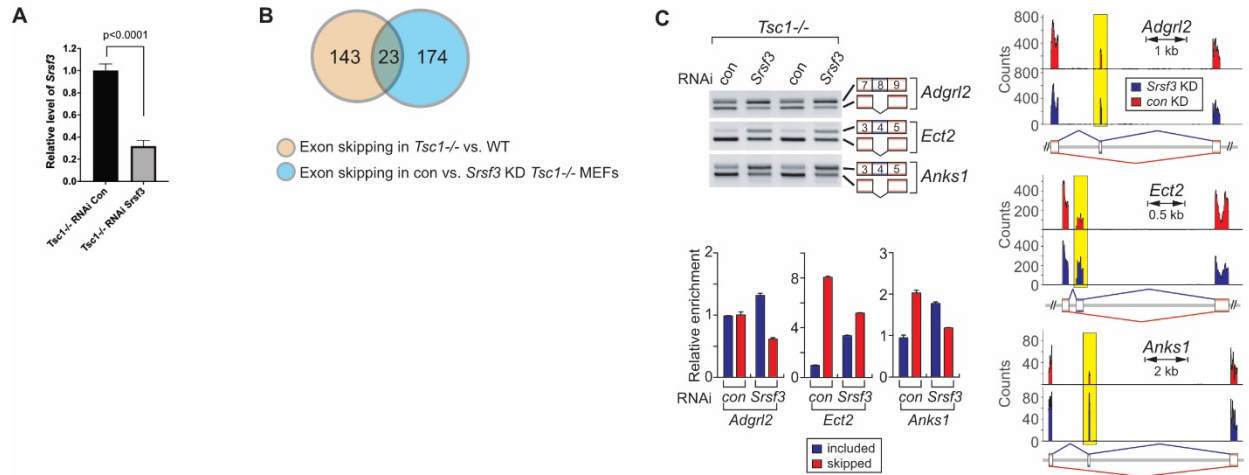


Figure S3. SRSF3 suppresses exon inclusion in mTOR-activated mouse embryonic fibroblasts. (a) qPCR quantitative expression analysis of *Srsf3* in the control and *Srsf3* siRNA knockdown *Tsc1*^{-/-} MEFs. (b) Venn diagram illustrating the overlap of skipped exons in *Tsc1*^{-/-} vs. WT MEFs and control vs. *Srsf3* knockdown in *Tsc1*^{-/-} MEFs datasets. (c) RT-PCR and semi-quantitative gel electrophoresis of select transcripts with differential AS found in *Tsc1*^{-/-} MEFs control vs. *Srsf3* knockdown treatment.