

**Supplementary Table 1.** List of primary antibodies used in this study. Dilution ratios given in the third lane are for Western blot. Abbreviations: CST: purchased from the Cell Signalling Technology, Danvers, MA, USA; SCB: Santa Cruz Biotechnology, Santa Cruz, CA, USA.

Primary antibody	Obtained from	Cat. No	Dilution
CDK2	abcam	ab32147	1:1000
CELF6	Proteintech	19078-1-AP	1:1000
Cyclin E1	EPITMICS	1655-1	1:1000
CDK4	EPITMICS	3830-1	1:1000
CDK6	EPITMICS	3524-1	1:50000
p21	EPITMICS	3733-1	1:1000
E2F1	EPITMICS	S1798	1:1000
$\alpha$ -tubulin	SCB	sc-5286	1:1000
p-Rb	CST	9308S	1:1000
GAPDH	abcam	ab128915	1:10000
$\beta$ -actin	Proteintech	66009-1-Ig	1:1000
Cyclin D1	CST	2978	1:1000
cyclinD3	CST	5175	1:1000

**Supplementary Table 2. Primer sequences and target sequences used in this study**

<b>Gene</b>	<b>Sequence or Target Sequence</b>
CELF6-F	5'-TCTTCATCTATCACCTGCCT-3'
CELF6-R	5'-AAAAC TAACAAACCCAAAACAC-3'
GAPDH -F	5'- ACGACCACTTTGTCAAGCTC-3'
GAPDH -R	5'- GTTGCTGTAGCCAAATTCGT-3'
cyclin D1-F	5'-GGAATCCTTTGGTGCCAACT-3'
cyclin D1-R	5'- CCTTCCGGTGTGAAACATCT-3'
GADD45 $\alpha$ -F	5'- GAGAGCAGAAGACCGAAAG-3'
GADD45 $\alpha$ -R	5'- GCAGGATGTTGATGTCGT-3'
CDK6-F	5'- CTCACACTGCTCTCCTCTCA-3'
CDK6-R	5'- CCCTCGGAATAGATGCCAGG-3'
E2F3-F	5'- CTTAGTATCCGGCACACAAAGT-3'
E2F3-R	5'- TGCACACTTGTAAC TTTTAGCCA-3'

**Supplementary Table 3. Expression levels of the RNA-binding proteins (RBPs) analyzed by RNA-Seq**

Gene ID	Gene Symbol	avgFPKM_DMSO	avgFPKM_YPA	log2 Fold Change	FDR
ENSG00000139793	MBNL2	14.4169	52.4015	1.86185	0.000287717
ENSG00000140488	CELF6	0.0443673	0.547818	3.62613	0.00365321
ENSG00000144642	RBMS3	2.8611	10.7685	1.91217	0.000287717
ENSG00000161265	U2AF1L4	6.41664	15.9392	1.31269	0.0114384
ENSG00000132819	RBM38	22.3479	10.6518	-1.06904	0.000287717
ENSG00000103067	ESRP2	25.973	12.9021	-1.00941	0.00124011
ENSG00000116752	BCAS2	49.0268	101.891	1.05539	0.000287717
ENSG00000131051	RBM39	188.691	379.779	1.00913	0.000287717
ENSG00000076053	RBM7	17.0186	47.3817	1.47721	0.000287717
ENSG00000184863	RBM33	19.6586	49.0266	1.31841	0.000287717
ENSG00000183496	MEX3B	1.37999	5.25502	1.92904	0.000287717
ENSG00000162775	RBM15	7.44664	21.0937	1.50215	0.000287717
ENSG00000100028	SNRPD3	225.173	103.266	-1.12467	0.000544733
ENSG00000176624	MEX3C	7.05432	18.2007	1.36741	0.000287717
ENSG00000164548	TRA2A	43.7819	119.109	1.44388	0.000287717
ENSG00000117569	PTBP2	11.2445	27.6593	1.29855	0.000287717
ENSG00000213079	SCAF8	7.89595	17.1125	1.11586	0.000287717
ENSG00000156304	SCAF4	9.4364	23.974	1.34516	0.000287717