

Supplementary Data

Tables:

Supplementary Table 1: Sequences of PARN specific si-RNA

Name	Sequence
SET 1:	
si-PARN 1s	5'-GCU CCA GCA UUG ACU UUC U-3'
si-PARN 1as	5'-A GAA AGU CAA UGC UGG AGC-3'
SET 2:	
si-PARN 2s	5'-AGG ACC AGA CUU GCA GCC UAA-3'
si-PARN 2as	5'-UUA GGC UGC AAG UCU GGU CCU-3'

Supplementary Table 2: Lists of oncogenes with their primer sequence:

Gene	Primer sequence (5'-3')
<i>BCL2</i>	FORWARD- TGGGAGAACAGGGTACGATA
	REVERSE- GGGCTGGGAGGAGAAGATG
<i>HRAS</i>	FORWARD- CCAGTACAGGGAGCAGATCA
	REVERSE- GGTCTTGGCCGAGGTCTC
<i>MET</i>	FORWARD- GCACTGCTTTAATAGGACACTTC
	REVERSE- CGAGAAACCACAACCTGCAT
<i>KRAS</i>	FORWARD- CTGGGGAGGGCTTTCTTTGT
	REVERSE- AGCATCCTCCACTCTCTGTC
<i>JUN</i>	FORWARD- AGAGCATGACCCTGAACCTG
	REVERSE- TCCTGCTCATCTGTACGTT
<i>FUS</i>	FORWARD- GCAGACTTTAATCGGGGTGG
	REVERSE- TCACAGGTGGGATTAGGACAC
<i>DEK</i>	FORWARD- ATGCATACAAAGCCTTCTGG
	REVERSE- GGTGGCTCCTCTTCACTTTC
<i>BCR</i>	FORWARD- CGGCAAGAGTTACACGTTTCT
	REVERSE- CCCC GGAGACTCATCATCTT
<i>EGFR</i>	FORWARD- GCTGCCAAAAGTGTGATCCA
	REVERSE- GGTGGGGTTGTAGAGCATGA
<i>MYC</i>	FORWARD- GGTCTTCCCCTACCCTCTCA
	REVERSE- TCATCTTCTTGTTCCCTCCTCAGA
<i>TFG</i>	FORWARD- ATGATCAGGTTTCAGGGCCA
	REVERSE- CTTCAATCTGACCTGCT
<i>AKT1</i>	FORWARD- TCCTCACAGCCCTGAAGTAC
	REVERSE- TACACCACGTTCTTCTCCGA
<i>SMO</i>	FORWARD- CTGAAGGCTGCACGAATGAG

	REVERSE- AGGGTAGCGATTTCGAGTTCC
<i>VEGFA</i>	FORWARD- GCCTCCGAAAACCATGAACTT
	REVERSE- GACATCCATGAACTTCACCACTT
<i>NFKB2</i>	FORWARD- CATGACAGCAAATCTCCGGG
	REVERSE- TCCGGAACACAATGGCATAAC
<i>ABL</i>	FORWARD- ACGTCTGGGCATTTGGAGTA
	REVERSE- GGCTTGGTGGATTTTCAGCAA

Supplementary Table 3: Lists of tumour suppressor genes with their primer sequence:

Gene	Primer sequence
<i>APC</i>	FORWARD- ACTTGAGAAAGAGAGGGTCATTGC
	REVERSE- GGCTATTCTTCGCTGTGCTC
<i>FOXP1</i>	FORWARD- TCTTCAGGTTCCCGTGTCAG
	REVERSE- CTGTTGCTCTTTAGGCTGTTTT
<i>MDM4</i>	FORWARD- GAAAGACCCAAGCCCTCTCT
	REVERSE- GCAGTGTGGGGATATCGTCT
<i>CHEK2</i>	FORWARD- CTGGGCAGAAGTCTCAGAGA
	REVERSE- TAGAAGGCTGGGCTAGAACC
<i>CDH1</i>	FORWARD- CAATCCCACCACGTACAAGG
	REVERSE- GAATGTACTGCTGCTTGGCC
<i>IL2</i>	FORWARD- CAACTCCTGTCTTGCATTGC
	REVERSE- TCACTTCTGTGGCCTTCTTG
<i>MAP2K4</i>	FORWARD- CAGAGAGGGTGACTGTTGGA
	REVERSE- ACTGATGCCGAAGTCACAGA
<i>BRCA1</i>	FORWARD- AGTCAGAGGAGATGTGGTCA
	REVERSE- TTGATCTGTGGGCATGTTGG
<i>MEN1</i>	FORWARD- ACCCAGAGCCAAGGTTCC
	REVERSE- CGCACCTGTCCCTCAAAC
<i>FH</i>	FORWARD- CTTGGGCAGGAATTTATGGGT
	REVERSE- GGAGCAGTGACAAAAGGCAA
<i>CDK6</i>	FORWARD- CGTGGTCAGGTTGTTTGATGT
	REVERSE- AAGAAAGTCCAGACCTCGGA
<i>NF1</i>	FORWARD- CGCATTCTACCAGGTTACAGG
	REVERSE- ACCCAGTTCCAAAATGCCTT
<i>NOTCH1</i>	FORWARD- CCAACTGCCAGAACCTTGTG

	REVERSE- CCACACAGAGCCCTCCATG
<i>PTEN</i>	FORWARD- CAGTGGCGGAACTTGCAATC
	REVERSE- AGCATCTTGTTCTGTTTGTGGA
<i>RB1</i>	FORWARD- GGTGAATCATTTCGGGACTTCTG
	REVERSE- TCCTGGGAGATGTTTACTTCCA
<i>TP53</i>	FORWARD- GACTTGCACGTACTCCCCT
	REVERSE- CCTCACAACCTCCGTCATGT
<i>TSC1</i>	FORWARD- AATTCTGACCGTGGCCCTAT
	REVERSE- GGATGGATAAACGAGTGGCG
<i>ATM</i>	FORWARD- CAAACAGAAGAGCACCTAGGC
	REVERSE- CAGATAGAGCCTGAAGTACACAG

Supplementary table 4: List of PARN specific siRNAs with and p-values of HEK-293, NCI-H460 and NCI-H522 cell lines post electroporation.

HEK-293		
	Relative expression	p-value
PARN siRNA1	0.5608	0.0779332525576
PARN siRNA2	0.3651	0.038925678
NCI-H460		
PARN siRNA1	0.1568	0.000295055
PARN siRNA2	0.1789	0.000332336
NCI-H522		
PARN siRNA1	0.4223	0.112061275
PARN siRNA2	0.3756	0.048195924

Supplementary table 5: List of genes along with its p-values obtained after applying t-test to the relative expression values of HEK-293, NCI-H460 and NCI-H522 cell lines post electroporation.

Gene	p-value		
	HEK-293	NCI-H460	NCI-H522
<i>APC</i>	0.001014	0.0228	0.048398
<i>CDK6</i>	0.082916	0.032856	0.002621
<i>CDH1</i>	0.052647	0.173508	0.003059
<i>CHEK2</i>	0.219129	0.5014	0.002058
<i>FOXP1</i>	0.130544	0.045358	0.000433
<i>FH</i>	0.096056	0.006328	0.000254
<i>MDM4</i>	0.087968	0.313499	0.00114
<i>IL2</i>	0.45252	0.048848	0.003115
<i>MAP2K4</i>	0.106481	0.228929	0.039008
<i>MEN1</i>	0.085731	0.001901	0.048244
<i>NF1</i>	0.049035	0.035222	0.000583
<i>NOTCH1</i>	0.032246	0.038566	0.536676
<i>PTEN</i>	0.528856	0.0013	0.059
<i>RBI</i>	0.141642	0.0002	0.001129
<i>TP53</i>	0.051696	0.194617	0.015963
<i>TSC</i>	0.072173	0.082136	0.006397
<i>ATM</i>	0.960812	0.55346	0.000592
<i>BRCA1</i>	0.055257	0.018461	0.00224
<i>MET</i>	0.098793	0.6700	0.368
<i>KRAS</i>	0.14687	0.059802	0.006
<i>JUN</i>	0.018824	0.2028	0.409629
<i>FOS</i>	0.04179	0.0244	0.18323

<i>BCR</i>	0.047502	0.4677	0.009111
<i>ABL</i>	0.049248	0.3520	0.018787
<i>MYC</i>	0.463343	0.0087	0.096108
<i>VEGFA</i>	0.32802	0.0002	0.049893
<i>TFG</i>	0.010259	0.0090	0.004034
<i>AKT</i>	0.106075	0.0000	0.065271
<i>PTPN11</i>	0.12871	0.0036	0.037535
<i>BCL2</i>	0.456737	0.001233	0.000478
<i>EGFR</i>	0.637244	0.268899	0.031503
<i>HRAS</i>	0.138668	0.037504	0.345451
<i>SMO</i>	0.108937	0.028263	0.377725
<i>NFKB2</i>	0.273323	0.628755	0.018889
<i>DEK</i>	3.85E-05	0.737945	0.3056

Supplementary table 6: p-values obtained after applying t-test the results of cell proliferation assay and clonogenic assay.

Cell line		p-value	
		Cell Proliferation Assay	Clonogenic Assay
HEK-293	siRNA1	0.009	0.000234
	siRNA2	0.064	0.003637
NCI-H460	siRNA1	0.691	0.382334
	siRNA2	0.508	0.414827
NCI-H522	siRNA1	0.565	0.819172
	siRNA2	0.332	0.407843