

## Supplement 1

### Primers

#### transcription factor binding ELISA

MRE1sense	5'-Biotin- CGC CTG GTC CCT CCT CCT CCC GCC CTG CCT CCC CGC GCC TCG GCC CGC GC-3'
MRE1 anti	5'- Biotin-CTC GGG ACT CCG GCC GCC TCG GCC GCG GCG GGC GCT CAC ACC GTG CGG GG -3'
GRE sense	5'-Biotin CTAGCGGTACATTTTGTCTAGAAC-3'
GRE anti	5'-Biotin- GTTCTAGAACAAAATGTACCGCTAG-3'
eNOS for	5'-Biotin-GAC CCT CAC CGC TAC AAC AT-3'
eNOS back	5'-Biotin-ATG TTG TAG CGG TGA GGG TC-3'

#### electromobility shift assay

MRE1.3 sense	5'-Biotin-CGTACCGCAGCAGCCTCCTCC-3'
MRE1.3anti	5'-Biotin-GTCGGGACTCCGGCCGCCTCGGCCGCGGGCGCTCACACCGTGCAGGG-3'
CRE sense	5'-Biotin-GCACCAGACAGTGACGTGAGCTGCCAGAT-3'
CRE65bp anti	5'-Biotin-GGTGTCTGAAAGACGTACAG-3'
MRE1.3a-(25bp)-sense	5'-Biotin- GCAGCAGCCTCCTCCCCCGCACGG-3'
MRE1.3a-(25 bp)-anti	5'-Biotin- CCGTGCGGGGGGAGGAGGCTGCTGC-3'
Bio-SP1 cons sense	5'-Biotin- ATTCGATCGGGGCGGGGCGAGC
Bio-SP1cons anti	5'-Biotin- GCTCGCCCCGCCCCGATCGAAT

## qPCR

<b>RNase K</b> (Ribonuclease kappa)	RNaseK for	AATGTCCATTCCGCTGTGTT
	RNaseK back	AGCGCACCATGTATTCCTTG
<b>Netrin 4</b> (netrin 4 precursor)	netrin 4 for	CCAGTCCTTTTCCATGCACT
	netrin 4 back	GCTGCCCTTGACAATGAAAT
<b>ST3Gal2</b> (ST3 beta-galactoside alpha-2,3-sialyltransferase)	ST3Gal2 forw	ACG TCC AGA GGT GGT GGA TG
	ST3Gal2 back	CTC ATG ATG AAG TTG TGC CCG T
<b>TARDBP</b> (TAR DNA binding protein)	TARDBP for	TGT ATG TTG TCA ACT ATC CAA AAG
	TARDBP back	CTG CAC CAT AAG AAC TTC TCC A
<b>HDGF</b> (Hepatoma-derived growth factor isoform a)	HDGF for	CCAAGGAGAAGTTTGGCAAG
	HDGF back	TTCAACGCTCCTTTCTCGTT
<b>SPTBN1</b> (Spectrin beta (non-erythrocytic))	SPTBN1 forward	CCCAGACAAAGGCCAGCGG
	SPTBN1 reverse	ACGGTGAGGCGCTTGCTGTC
<b>PPP1R7</b> (Protein Phosphatase 1 Untereinheit 7)	PPP1R7 forward	CACGATGTTGGACATTGCAT
	PPP1R7 reverse	GCTCCAGCTCTCAAGGAGATT
<b>RanGAP1</b> (Ran GTPase activating protein 1)	RANGAP1 forward	GGCCTTAGAGAAGAAGTCGGA
	RANGAP1 reverse	GCTTAAGTCCAGCTCCACCA
<b>UBE2B</b> (Ubiquitin-conjugating enzyme E2B)	UBE2B forward	TCCAAAATGTTTCATCCAAATG
	UBE2B reverse	ATTCGGTTCATCCAGCAGAG
<b>GPR64</b> (G protein-coupled receptor 64. isoform 1)	GPR64 forward	ACCAGCGCACCTCCTGTCCA
	GPR64 reverse	TTGAGCCAGAGGGGCCAGCA

## Supplement 2

uc001art.2	chr1:11072429-11073784	TAR DNA binding protein
uc001fpy.3	chr1:156721222-156721793	hepatoma-derived growth factor isoform a
uc002rxu.2	chr2:54683204-54753555	spectrin, beta, non-erythrocytic 1 isoform 1
uc002wav.1	chr2:242092641-242097244	protein phosphatase 1, regulatory subunit
uc002wcq.3	chr2:242800991-242801308	programmed cell death 1 precursor
uc003eqa.3	chr3:133748647-133749170	solute carrier organic anion transporter family member 2A1
uc011byf.1	chr4:37978780-37979120	TBC1 (tre-2/USP6, BUB2, cdc16) domain family,
uc003kuc.2	chr5:126112583-126113200	lamin B1
uc003kzh.2	chr5:133706620-133707286	ubiquitin-conjugating enzyme E2B
uc003zhc.2	chr9:2015092-2029022	SWI/SNF-related matrix-associated
uc004cyx.2	chrX:19086953-19140927	G protein-coupled receptor 64 isoform 1
uc004eqz.2	chrX:118110045-118112414	LON peptidase N-terminal domain and ring finger
uc001jjv.1	chr10:56424023-57387952	protocadherin 15 precursor
uc001opf.2	chr11:69518645-69519356	fibroblast growth factor 19 precursor
uc001tei.2	chr12:96184088-96184786	netrin 4 precursor
uc010tvb.1	chr14:75894670-75904623	Jun dimerization protein 2 isoform a
uc010tw.1	chr14:92909459-92913763	solute carrier family 24 member 4 isoform 3
uc002eyx.2	chr16:70432434-70473241	ST3 beta-galactoside alpha-2,3-sialyltransferase
uc002gea.2	chr17:6915548-6916002	ribonuclease kappa
uc002kom.3	chr18:10454375-10454978	adenomatosis polyposis coli down-regulated 1
uc002yfr.1	chr20:62284699-62285030	SCG10-like-protein
uc003azt.2	chr22:41677049-41682219	Ran GTPase activating protein 1

Semi-global alignments of MRE1.3'' with promoter regions of the human genome; listed are promoters of known genes with a ratio of -0.81.

