Table S1. TaqMan Assays for mRNA quantification by qPCR

Genes	Names	Dyes	TaqMan Assay ID	Amplicon	Ref. Sequence
PPIA	Cyclophilin A	VIC	Hs_99999904_m1	98	NM_021130.3
DVL2	Dishevelled segment polarity protein 2	FAM	Hs_1005253_m1	55	NM_004422.2
ETS1	*ETS proto-oncogene 1, transcription factor*	FAM	Hs_00428293_m1	99	NM_001143820.1
IL1RAP	Interleukin 1 receptor accessory protein	FAM	Hs_00370509_m1	113	NM_001167928.1

Table S2. miR-221-3p and miR-222-3p Target Gene aliases and names

VALIDATED GENES	NAMES
ABLIM1	Actin-binding LIM protein 1
ACTB	Actin, cytoplasmic 1
ACTG1	Actin, cytoplasmic 2
ADAM1A	Adam Metallopeptidase Domain 1A (Pseudogene)
ARHGAP42	Rho GTPase-activating protein 42
C19orf12	Protein C19orf12
CABYR	Calcium-binding tyrosine phosphorylation-regulated protein
CDKN1C	Cyclin-dependent kinase inhibitor 1C
CHORDC1	Cysteine and histidine-rich domain-containing protein 1
CIAPIN1	Anamorsin
COG5	Conserved oligomeric Golgi complex subunit 5
CORO1A	Coronin-1A
CPSF6	Cleavage and polyadenylation specificity factor subunit 6
CSTF2T	Cleavage stimulation factor subunit 2 tau variant
DDIT4	DNA damage-inducible transcript 4 protein
DDX6	Probable ATP-dependent RNA helicase DDX6
DERL2	Derlin-2

DIRAS3	GTP-binding protein Di-Ras3
DKK2	Dickkopf-related protein 2
ETS1	Protein C-ets-1
EXOC8	Exocyst complex component 8
FAM35A	Protein FAM35A
FAM84A	Protein FAM84A
FBXL18	F-box/LRR-repeat protein 18
FOS	Proto-oncogene c-Fos
GCN1L1	Alternative protein GCN1L1
HNRNPD	Heterogeneous nuclear ribonucleoprotein D0
KPNA6	Importin subunit alpha-7
MAT2A	S-adenosylmethionine synthase isoform type-2
MGMT	Methylated-DNA--protein-cysteine methyltransferase
MKKS	McKusick-Kaufman/Bardet-Biedl syndromes putative chaperonin
OBFC1	CST complex subunit STN1
OIP5	Protein Mis18-beta
PGPEP1	Pyroglutamyl-peptidase 1
PIWIL1	Piwi-like protein 1
PRPS1L1	Ribose-phosphate pyrophosphokinase 3
RBMS2	RNA-binding motif, single-stranded-interacting protein 2
RNF4	E3 ubiquitin-protein ligase RNF4
SAPCD2	Suppressor APC domain-containing protein 2
SELE	E-selectin
SLC25A36	Solute carrier family 25 member 36
SMC2	Structural maintenance of chromosomes protein 2
SNX4	Sorting nexin-4
STAT5A	Signal transducer and activator of transcription 5A
TIMP3	Metalloproteinase inhibitor 3
TIPARP	TCDD-inducible poly [ADP-ribose] polymerase
TMCC1	Transmembrane and coiled-coil domains protein 1
TNFSF10	Tumor necrosis factor ligand superfamily member 10
TRAT1	T-cell receptor-associated transmembrane adapter 1
TSPAN13	Tetraspanin-13
ZEB2	Zinc finger E-box-binding homeobox 2
ZFP30	Zinc finger protein 30 homolog
ZNF236	Zinc finger protein 236

PREDICTED	**NAME**
AKT3	RAC-gamma serine/threonine-protein kinase
APAF1	Apoptotic protease-activating factor 1
BCL2	Apoptosis regulator Bcl-2
CASP10	Caspase 10
CELF1	CUGBP Elav-like family member 1
CREB1	Cyclic AMP-responsive element-binding protein 1

DVL2	Segment polarity protein disheveled homolog DVL-2
IKBKG	NF-kappa-B essential modulator
IL1RAP	Interleukin-1 receptor accessory protein
LIFR	Leukemia inhibitory factor receptor
NCK1	Cytoplasmic protein NCK1
PDGFD	Platelet-derived growth factor D
PIK3CD	Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit delta isoform
PPP3R1	Calcineurin subunit B type 1
PRKCB	Protein kinase C beta type
STAT2	Signal transducer and activator of transcription 2
TNFSF10	Tumor necrosis factor ligand superfamily member 10

Table S3. Binding sites of miR-221-3p and miR-222-3p within the selected target genes

GENE	ID	3' UTR length	miRNA	Position	seed match	Context ++ score	Context ++ score Percentil	Pct
ETS1	ENST00000531611.1	3774	hsa-miR-221-3p	3581-3587	7mer-m8	-0.09	65	0.10
ETS1	ENST00000531611.1	3774	hsa-miR-222-3p	3581-3587	7mer-m8	-0.11	70	0.1
ETS1	ENST00000531611.1	3774	hsa-miR-221-3p	1231-1237	7mer-1A	-0.09	65	<0.1
ETS1	ENST00000531611.1	3774	hsa-miR-222-3p	1231-1237	7mer-1A	-0.1	67	<0.1
ETS1	ENST00000345075.4	3600	hsa-miR-221-3p	3403-3409	7mer-m8	-0.08	62	0.10
ETS1	ENST00000345075.4	3600	hsa-miR-222-3p	3403-3409	7mer-m8	-0.10	68	0.10
ETS1	ENST00000345075.4	3600	hsa-miR-221-3p	3403-3409	7mer-1A	-0.08	64	<0.1

ETS1	ENST00000345075.4	3600	hsa-miR-222-3p	3403-3409	7mer-1A	-0.10	67	<0.1
IL1RAP	ENST00000422485.1	3005	hsa-miR-221-3p	199-205	7mer-m8	-0.28	94	<0.1
IL1RAP	ENST00000422485.1	3005	hsa-miR-222-3p	199-205	7mer-m8	-0.29	94	<0.1
IL1RAP	ENST00000317757.3	1447	hsa-miR-221-3p	865-871	7mer-m8	-0.07	56	<0.1
IL1RAP	ENST00000317757.3	1447	hsa-miR-222-3p	865-871	7mer-m8	-0.1	67	<0.1
DVL2	ENST00000005340.5	524	hsa-miR-221-3p	449-455	7mer-m8	-0.11	70	<0.1
DVL2	ENST00000005340.5	524	hsa-miR-222-3p	449-455	7mer-m8	-0.12	72	<0.1