

Electronic Supplementary Material

Effect of Loss-of-function of the Herpes Simplex Virus-1 MicroRNA H6-5p on Virus Replication

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Table S1. miRNA Sponge Sequence

miRNA sponge	Sequence (The underlined nucleotides indicate the linker sequence)
Scramble sequence	5'-AAACGTGACACGTTCCGGAGAA-3'
miR-H6-5p sponge	5'- GGTACACCCCGGACCTTCCACCA <u>AATT</u> GGTACACCCCGGACCTTCCACC <u>AATT</u> GGTACACCCCGGACCTTCCACCA <u>AATT</u> GGTACACCCCGGACCTTCC CACC <u>AATT</u> GGTACACCCCGGACCTTCCACCA <u>AATT</u> GGTACACCCCGGAC CTTCCACCA <u>AATT</u> GGTACACCCCGGACCTTCCACCA <u>AATT</u> GGTACACCC GGACCTTCCACCA <u>AATT</u> GGTACACCCCGGACCTTCCACCA <u>AATT</u> GGTACA CCCCGGACCTTCCACC-3'

Table S2. miRNA, 18s RNA and U6 snRNA primers and probes used in this study

miRNA	Stem-loop RT primer	Forward primer	Reverse primer	Probe
H6-5p	5'- GTCGTATCCAGTGCAG GGTCCGAGGTATTTCGC ACTGGATACGACTACA CC-3'	5'- CAAGACGGTG GAAGGCAGG- 3'	5'- CCAGTGCAGGGT CCGAGGTA-3'	5'- (FAM) TGGATACGACTCC ACT(MGB) -3'
H6-3p	5'- GTCGTATCCAGTGCAG GGTCCGAGGTATTTCGC ACTGGATACGACGGGA TG-3'	5'- TCATAAACT TCCCGTCCTT CC-3'	5'- CCAGTGCAGGGT CCGAGGTA-3'	5'- (FAM) ATACGACAGGGTG GAA(MGB) -3'
H1-5p	5'- GTCGTATCCAGTGCAG GGTCCGAGGTATTTCGC ACTGGATACGACTTCC AC-3'	5'- CACGCAGATG GAAGGACGG- 3'	5'- CCAGTGCAGGGT CCGAGGTA-3'	5'- (FAM) TGGATACGACTAC ACCCCCT (MGB) - 3'
H1-3p	5'- GTCGTATCCAGTGCAG GGTCCGAGGTATTTCGC ACTGGATACGACAGGG TG-3'	5'- CTCGTTACA CCCCCTGC- 3'	5'- CCAGTGCAGGGT CCGAGGTA-3'	5'- (FAM) TGGATACGACGGG ATGGA (MGB) -3'
18s RNA	5'-CGCTCCACCA ACTAAGA ACG-3'	5'-CTCAAC ACGGGAAACC TCAC-3'	5'-CGCTCCA CCAATAAGA ACG-3'	5'- (FAM) CAGGATTGACAGA TTGA (MGB) -3'
U6 snRNA	5'- CTCGCTTCGGCAGCAC A -3'	5'- AACGCTTAC GAATTTGCGT- 3'	5'- AACGCTTACGA ATTTGCGT-3'	5'- (FAM) CTCTGTATCGTTC CAATTTAGTAT (MGB) -3'

Table S3. Potential targeted genes of miR-H6-5p

Target gene	Gene name
CCBL2	cysteine conjugate-beta lyase 2
KCNMA1	potassium large conductance calcium-activated channel, subfamily M, alpha member 1
ABL2	v-abl Abelson murine leukemia viral oncogene homolog 2 (arg, Abelson-related gene)
AMMECR1	Alport syndrome, mental retardation, midface hypoplasia and elliptocytosis chromosomal region, gene 1
AMT	aminomethyltransferase
ANK3	ankyrin 3, node of Ranvier (ankyrin G)
AP3M1	adaptor-related protein complex 3, mu 1 subunit
APLP2	amyloid beta (A4) precursor-like protein 2
ARL6IP1	ADP-ribosylation factor-like 6 interacting protein 1
ARPP-19	cyclic AMP phosphoprotein, 19 kD
BZW1	basic leucine zipper and W2 domains 1
CBY1	chibby homolog 1 (Drosophila)
CC2D1B	coiled-coil and C2 domain containing 1B
CCDC80	coiled-coil domain containing 80
CDH11	cadherin 11, type 2, OB-cadherin (osteoblast)
CHD5	chromodomain helicase DNA binding protein 5
COL1A2	collagen, type I, alpha 2
COLQ	collagen-like tail subunit (single strand of homotrimer) of asymmetric acetylcholinesterase
DLG4	discs, large homolog 4 (Drosophila)
ELP3	elongation protein 3 homolog (S. cerevisiae)
FCHSD2	FCH and double SH3 domains 2
FHL5	four and a half LIM domains 5
FOXP3	forkhead box N3
GATAD2B	GATA zinc finger domain containing 2B
GPR124	G protein-coupled receptor 124
GUSB	glucuronidase, beta
HECTD3	HECT domain containing 3
HPN	hepsin (transmembrane protease, serine 1)
HRH4	histamine receptor H4
JHDM1D	jumonji C domain containing histone demethylase 1 homolog D (S. cerevisiae)
KIAA1045	KIAA1045
KPNA1	karyopherin alpha 1 (importin alpha 5)
LOC751071	hypothetical protein LOC751071
LPP	LIM domain containing preferred translocation partner in lipoma
LRIG1	leucine-rich repeats and immunoglobulin-like domains 1
MAF	v-maf musculoaponeurotic fibrosarcoma oncogene homolog (avian)
MED1	mediator complex subunit 1
NRN1	neuritin 1
OXR1	oxidation resistance 1
PANK2	pantothenate kinase 2 (Hallervorden-Spatz syndrome)
PCMT1	protein-L-isoaspartate (D-aspartate) O-methyltransferase
PDE1C	phosphodiesterase 1C, calmodulin-dependent 70kDa
PEG10	paternally expressed 10
* PICALM	phosphatidylinositol binding clathrin assembly protein
PTPRJ	protein tyrosine phosphatase, receptor type, J
RAB2B	RAB2B, member RAS oncogene family
RAB6B	RAB6B, member RAS oncogene family
RBMX	RNA binding motif protein, X-linked
RNF144A	ring finger protein 144A
RPS6KB1	ribosomal protein S6 kinase, 70kDa, polypeptide 1
SELL	selectin L (lymphocyte adhesion molecule 1)

SETD8	SET domain containing (lysine methyltransferase) 8
SLAMF1	signaling lymphocytic activation molecule family member 1
SLC16A2	solute carrier family 16, member 2 (monocarboxylic acid transporter 8)
SNIP	SNAP25-interacting protein
SPRY3	sprouty homolog 3 (Drosophila)
STAU2	staufen, RNA binding protein, homolog 2 (Drosophila)
STX6	syntaxin 6
SV2A	synaptic vesicle glycoprotein 2A
TACSTD1	tumor-associated calcium signal transducer 1
TDRD1	tudor domain containing 1
TIPARP	TCDD-inducible poly(ADP-ribose) polymerase
TMOD1	tropomodulin 1
WDR76	WD repeat domain 76
WWP1	WW domain containing E3 ubiquitin protein ligase 1
* ZDHHC3	zinc finger, DHHC-type containing 3
ZHX3	zinc fingers and homeoboxes 3
ZSCAN22	zinc finger and SCAN domain containing 22
hCG_18385	similar to cAMP-regulated phosphoprotein
MTF1	metal-regulatory transcription factor 1
ADAMTS5	ADAM metalloproteinase with thrombospondin type 1 motif, 5 (aggrecanase-2)
AFF4	AF4/FMR2 family, member 4
* AQP4	aquaporin 4
ARFIP2	ADP-ribosylation factor interacting protein 2 (arfaptin 2)
ARID1B	AT rich interactive domain 1B (SWI1-like)
ARID4A	AT rich interactive domain 4A (RBP1-like)
ASXL1	additional sex combs like 1 (Drosophila)
ATXN1	ataxin 1
C1orf151	chromosome 1 open reading frame 151
C20orf160	chromosome 20 open reading frame 160
C5orf41	chromosome 5 open reading frame 41
CACNB1	calcium channel, voltage-dependent, beta 1 subunit
CISH	cytokine inducible SH2-containing protein
CKAP4	cytoskeleton-associated protein 4
DLGAP1	discs, large (Drosophila) homolog-associated protein 1
EOMES	eomesodermin homolog (Xenopus laevis)
ESRRG	estrogen-related receptor gamma
FAM110B	family with sequence similarity 110, member B
FAM120C	family with sequence similarity 120C
FAM71F2	family with sequence similarity 71, member F2
FBXO33	F-box protein 33
FBXO46	F-box protein 46
HIPK2	homeodomain interacting protein kinase 2
ICA1L	islet cell autoantigen 1,69kDa-like
JARID1A	jumonji, AT rich interactive domain 1A
KIAA2018	KIAA2018
LPPR2	lipid phosphate phosphatase-related protein type 2
NAMPT	nicotinamide phosphoribosyltransferase
NLGN2	neuroligin 2
OLFML2A	olfactomedin-like 2A
OPCML	opioid binding protein/cell adhesion molecule-like
PDE11A	phosphodiesterase 11A
PHOX2B	paired-like homeobox 2b
PLCB1	phospholipase C, beta 1 (phosphoinositide-specific)
POGK	pogo transposable element with KRAB domain
PPP1R2	protein phosphatase 1, regulatory (inhibitor) subunit 2
PRPF4B	PRP4 pre-mRNA processing factor 4 homolog B (yeast)
RNF150	ring finger protein 150

RNF166	ring finger protein 166
* SENP7	SUMO1/sentrin specific peptidase 7
SLC25A1	solute carrier family 25 (mitochondrial carrier; citrate transporter), member 1
SPON1	spondin 1, extracellular matrix protein
SPTB	spectrin, beta, erythrocytic (includes spherocytosis, clinical type I)
SPTLC2	serine palmitoyltransferase, long chain base subunit 2
ST8SIA4	ST8 alpha-N-acetyl-neuraminide alpha-2,8-sialyltransferase 4
TCF12	transcription factor 12 (HTF4, helix-loop-helix transcription factors 4)
ZNF24	zinc finger protein 24
ZNF655	zinc finger protein 655
AAK1	AP2 associated kinase 1
ABHD2	abhydrolase domain containing 2
AGTR1	angiotensin II receptor, type 1
ALCAM	activated leukocyte cell adhesion molecule
ANKRD12	ankyrin repeat domain 12
ANXA7	annexin A7
APBB2	amyloid beta (A4) precursor protein-binding, family B, member 2 (Fe65-like)
ARHGAP29	Rho GTPase activating protein 29
ARHGEF3	Rho guanine nucleotide exchange factor (GEF) 3
ATP6V0D2	ATPase, H ⁺ transporting, lysosomal 38kDa, V0 subunit d2
BSN	bassoon (presynaptic cytomatrix protein)
BTG1	B-cell translocation gene 1, anti-proliferative
C12orf12	chromosome 12 open reading frame 12
C12orf42	chromosome 12 open reading frame 42
C2CD3	C2 calcium-dependent domain containing 3
C9orf102	chromosome 9 open reading frame 102
CAMKK2	calcium/calmodulin-dependent protein kinase kinase 2, beta
CAMTA1	calmodulin binding transcription activator 1
CAPRN1	cell cycle associated protein 1
CHST4	carbohydrate (N-acetylglucosamine 6-O) sulfotransferase 4
CMYA5	cardiomyopathy associated 5
CNIH	cornichon homolog (Drosophila)
DNALI1	dynein, axonemal, light intermediate chain 1
FBXO30	F-box protein 30
FOXA1	forkhead box A1
FUT9	fucosyltransferase 9 (alpha (1,3) fucosyltransferase)
HNF1B	HNF1 homeobox B
HNRNPU	heterogeneous nuclear ribonucleoprotein U (scaffold attachment factor A)
IGF1R	insulin-like growth factor 1 receptor
* IKBKB	inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta
KIAA1219	KIAA1219
LARP5	La ribonucleoprotein domain family, member 5
MAFF	v-maf musculoaponeurotic fibrosarcoma oncogene homolog F (avian)
MAP1B	microtubule-associated protein 1B
MAPKAPK5	mitogen-activated protein kinase-activated protein kinase 5
MARK1	MAP/microtubule affinity-regulating kinase 1
MEIS1	Meis homeobox 1
MEIS2	Meis homeobox 2
MKRN3	makorin, ring finger protein, 3
MMD	monocyte to macrophage differentiation-associated
MPHOSPH8	M-phase phosphoprotein 8
MS4A1	membrane-spanning 4-domains, subfamily A, member 1
NARG1	NMDA receptor regulated 1
OTUD5	OTU domain containing 5
PCDH9	protocadherin 9
PDCD6IP	programmed cell death 6 interacting protein
PHF20L1	PHD finger protein 20-like 1

PTPRB	protein tyrosine phosphatase, receptor type, B
RAVER2	ribonucleoprotein, PTB-binding 2
RHOBTB2	Rho-related BTB domain containing 2
RNF128	ring finger protein 128
SACM1L	SAC1 suppressor of actin mutations 1-like (yeast)
SAMD12	sterile alpha motif domain containing 12
SCD5	stearoyl-CoA desaturase 5
SCN8A	sodium channel, voltage gated, type VIII, alpha subunit
SEMA6A	sema domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 6A
SERTAD3	SERTA domain containing 3
SIPA1L2	signal-induced proliferation-associated 1 like 2
SIRT5	sirtuin (silent mating type information regulation 2 homolog) 5 (<i>S. cerevisiae</i>)
SLC10A7	solute carrier family 10 (sodium/bile acid cotransporter family), member 7
SMG1	PI-3-kinase-related kinase SMG-1
SNAP25	synaptosomal-associated protein, 25kDa
SNTB2	syntrophin, beta 2 (dystrophin-associated protein A1, 59kDa, basic component 2)
SOX10	SRY (sex determining region Y)-box 10
SPRR2B	small proline-rich protein 2B
SPRR2E	small proline-rich protein 2E
SS18	synovial sarcoma translocation, chromosome 18
SSR1	signal sequence receptor, alpha (translocon-associated protein alpha)
ST8SIA1	ST8 alpha-N-acetyl-neuraminide alpha-2,8-sialyltransferase 1
STIM2	stromal interaction molecule 2
TANC2	tetratricopeptide repeat, ankyrin repeat and coiled-coil containing 2
THRB	thyroid hormone receptor, beta (erythroblastic leukemia viral (v-erb-a) oncogene homolog 2, avian)
TMEM174	transmembrane protein 174
TMEM189- UBE2V1	TMEM189-UBE2V1
TRAM2	translocation associated membrane protein 2
UBE2V1	ubiquitin-conjugating enzyme E2 variant 1
WNK1	WNK lysine deficient protein kinase 1
ZBTB41	zinc finger and BTB domain containing 41
ZNF318	zinc finger protein 318
ZYG11B	zyg-11 homolog B (<i>C. elegans</i>)