

Supplementary Table S1. Primer pairs used for the construction of GFP reporter vectors.

Primers	Sequence
pMXs-GIN-miR140-3pT s ⁺	5'- GGCCGCTCCGTGGTTCTACCCTGTGGTAGGG -3'
pMXs-GIN-miR140-3pT a ⁺	5'- TCGACCCTACCACAGGGTAGAACCACGGAGC-3'
pMXs-GIN-miR140-5pT s	5'- GGCCGCTCTACCATAGGGTAAAACCACTGGGG -3'
pMXs-GIN-miR140-5pT a	5'- TCGACCCCAGTGGTTTTACCCTATGGTAGAGC -3'
PCR-miR140-5p/140-3p s	5'- TGCTTGCTGGTGGTGTAGTC -3'
PCR-miR140-5p/140-3p a	5'- ACCAACACCCACCCAATAGA -3'

s⁺; sense strand

a⁺; antisense strand

Supplementary Table S2. Primer pairs used for the construction of lentivirus vector pLSP.

Primers	Sequence
pLenti6/V5-GW/lacZ	s 5'- GAGTCTAGATTTCGAGCTCGGTACC-3'
pLenti6/V5-GW/lacZ	a 5'- CTCGTTTAAACTCCTCTCACTCTCTG-3'
pCR2.1-ΔU3/HIV-1 3'LTR	s 5'- CTTGCTAGCCTTCGTTGGGAG -3'
pCR2.1-ΔU3/HIV-1 3'LTR	a 5'- GAGGTCGACACAAGATCTGCT -3'
insert oligo	s 5'- CTAGCGGATCCATGAGAATTCG -3'
insert oligo	a 5'- TCGACGAATTCTCATGGATCCG -3'

Supplementary Table S3. Primer pair used for the construction of TuD RNA shuttle vector.

Primers		Sequence
TuD RNA shuttle	s	5'- TTTGACGGCGCTAGGATCATCGGAGACGGTACCGTCTCGATGATCCTAGCGCCGTCTTTTTTG -3'
TuD RNA shuttle	a	5'- AATTCAAAAAAGACGGCGCTAGGATCATCGAGACGGTACCGTCTCCGATGATCCTAGCGCCGT-3'
TuD RNA protoshuttle	s	5'- TTTGACGGCGCTAGGATCATCGGAGACGGTACCGTCTCCGATGATCCTAGCGCCGTCTTTTTTG -3'
TuD RNA protoshuttle	a	5'- AATTCAAAAAAGACGGCGCTAGGATCATCGGAGACGGTACCGTCTCCGATGATCCTAGCGCCGT-3'

Supplementary Table S4. Primer pairs used for the construction of TuD RNA expression vectors.

Primers	Sequence
TuD RNA-miR140-5p-4ntin	s 5'- CATCAACCTACCATAGGGTCATCAAAACCACTGCAAGTATTCTGGTCACAGAATACAACCTACCATAGGGTCATCAAAACCACTGCAAG -3'
TuD RNA-miR140-5p-4ntin	a 5'- TCATCTTGCAGTGGTTTTGATGACCCTATGGTAGGTTGTATTCTGTGACCAGAATACTTGCAGTGGTTTTGATGACCCTATGGTAGGTT -3'
TuD RNA-miR140-3p-4ntin	s 5'- CATCAACTCCGTGGTTCTAATCTCCCTGTGGTACAAGTATTCTGGTCACAGAATACAACCTCCGTGGTTCTAATCTCCCTGTGGTACAAG -3'
TuD RNA-miR140-3p-4ntin	a 5'- TCATCTTGTACCACAGGGAGATTAGAACCACGGAGTTGTATTCTGTGACCAGAATACTTGTACCACAGGGAGATTAGAACCACGGAGTT-3'
TuD RNA-miR140-3p-pf	s 5'- CATCAACTCCGTGGTTCTACCCTGTGGTACAAGTATTCTGGTCACAGAATACAACCTCCGTGGTTCTACCCTGTGGTACAA -3'
TuD RNA-miR140-3p-pf	a 5'- CATCTTGTACCACAGGGTAGAACCACGGAGTTGTATTCTGTGACCAGAATACTTGTACCACAGGGTAGAACCACGGAGTT -3'
TuD RNA-miR21-4ntin	s 5'- CATCAACTCAACATCAGTCAATGTGATAAGCTACAAGTATTCTGGTCACAGAATACAACCTCAACATCAGTCAATGTGATAAGCTACAAG -3'
TuD RNA-miR21-4ntin	a 5'- TCATCTTGTAGCTTATCACATTGACTGATGTTGAGTTGTATTCTGTGACCAGAATACTTGTAGCTTATCACATTGACTGATGTTGAGTT -3'
TuD RNA-miR21-pf	s 5'- CATCAACTCAACATCAGTCTGATAAGCTACAAGTATTCTGGTCACAGAATACAACCTCAACATCAGTCTGATAAGCTACAAG -3'
TuD RNA-miR21-pf	a 5'- TCATCTTGTAGCTTATCAGACTGATGTTGAGTTGTATTCTGTGACCAGAATACTTGTAGCTTATCAGACTGATGTTGAGTT-3'
TuD RNA-miR16-4ntin	s 5'- CATCAACCGCCAATATTTAGATCCGTGCTGCTACAAGTATTCTGGTCACAGAATACAACCGCCAATATTTAGATCCGTGCTGCTACAAG -3'
TuD RNA-miR16-4ntin	a 5'- TCATCTTGTAGCAGCACGGATCTAAATATTGGCGGTTGTATTCTGTGACCAGAATACTTGTAGCAGCACGGATCTAAATATTGGCGGTT -3'
TuD RNA-miR195-4ntin	s 5'- CATCAACGCCAATATTTCAATGTGTGCTGCTACAAGTATTCTGGTCACAGAATACAACGCCAATATTTCAATGTGTGCTGCTACAAG -3'
TuD RNA-miR195-4ntin	a 5'- TCATCTTGTAGCAGCACACATTGAAATATTGGCGTGTATTCTGTGACCAGAATACTTGTAGCAGCACACATTGAAATATTGGCGTT -3'
TuD RNA-miR497-4ntin	s 5'- CATCAACACAAACCACAGAATCTGTGCTGCTGCAAGTATTCTGGTCACAGAATACAACACAAACCACAGAATCTGTGCTGCTGCAAG -3'
TuD RNA-miR497-4ntin	a 5'- TCATCTTGCAGCAGCACAGATTCTGTGGTTTTGTGTTGTATTCTGTGACCAGAATACTTGCAGCAGCACAGATTCTGTGGTTTTGTGTT -3'
TuD RNA-NC	s 5'- CATCAACAAGCCACAACGAATCTCTATATCATCAAGTATTCTGGTCACAGAATACAACAAGCCACAACGAATCTCTATATCATCAAG -3'
TuD RNA-NC	a 5'- TCATCTTGATGATATAGAGATTTCGTTGTGGCTTGTGTTGTATTCTGTGACCAGAATACTTGTATGATATAGAGATTTCGTTGTGGCTTGTGTT-3'

Supplementary Table S5. Primer pairs used for the construction of Decoy RNA expression vectors (To be continued).

Primers	Sequence
Decoy RNA #001	s 5'- TTTGACGGCGCTGGATGCTTGGATCCGTGGTTCTACCCTGTGGTAAGGAAGCATCCAGCGCCGTCTTTTTTG -3'
Decoy RNA #001	a 5'- AATTCAAAAAAGACGGCGCTGGATGCTTCCTTACCACAGGGTAGAACCACGGATCCAAGCATCCAGCGCCGT -3'
Decoy RNA #002	s 5'- TTTGACGGCGCTAGGATGCTTGGATCCGTGGTTCTACCCTGTGGTAAGGAAGCATCCTAGCGCCGTCTTTTTTG -3'
Decoy RNA #002	a 5'- AATTCAAAAAAGACGGCGCTAGGATGCTTCCTTACCACAGGGTAGAACCACGGATCCAAGCATCCTAGCGCCGT -3'
Decoy RNA #003	s 5'- TTTGACAGCGCTCTACGATGAAGGCTCCGTGGTTCTACCCTGTGGTAAGGTTTCATCGTAGAGCGCTGTCTTTTTTG -3'
Decoy RNA #003	a 5'- AATTCAAAAAAGACAGCGCTCTACGATGAACCTTACCACAGGGTAGAACCACGGAGCCTTCATCGTAGAGCGCTGT -3'
Decoy RNA #004	s 5'- TTTGACAGCGCTCTACGATGCAAGGCTCCGTGGTTCTACCCTGTGGTAAGGTTGCATCGTAGAGCGCTGTCTTTTTTG -3'
Decoy RNA #004	a 5'- AATTCAAAAAAGACAGCGCTCTACGATGCAACCTTACCACAGGGTAGAACCACGGAGCCTTGCATCGTAGAGCGCTGT -3'
Decoy RNA #005	s 5'- TTTGACAGCGCTCGCAGGATGCTTGGCTCCGTGGTTCTACCCTGTGGTAAGGAAGCATCCTGCGAGCGCTGTCTTTTTTG -3'
Decoy RNA #005	a 5'- AATTCAAAAAAGACAGCGCTCGCAGGATGCTTCCTTACCACAGGGTAGAACCACGGAGCCAAGCATCCTGCGAGCGCTGT -3'
Decoy RNA #006	s 5'- TTTGACAGCGCTCAAAGCAGGATGCTTGGCTCCGTGGTTCTACCCTGTGGTAAGGAAGCATCCTGCTTTGAGCGCTGTCTTTTTTG -3'
Decoy RNA #006	a 5'- AATTCAAAAAAGACAGCGCTCAAAGCAGGATGCTTCCTTACCACAGGGTAGAACCACGGAGCCAAGCATCCTGCTTTGAGCGCTGT -3'
Decoy RNA #007	s 5'-TTTGACGGCGCTAGGATCATCTCCGTGGTTCTACCCTGTGGTAGTATTCTGGTCACAGAATACGATGATCCTAGCGCCGTCTTTTTTG -3'
Decoy RNA #007	a 5'-AATTCAAAAAAGACGGCGCTAGGATCATCGTATTCTGTGACCAGAATACTACCACAGGGTAGAACCACGGAGATGATCCTAGCGCCGT-3'
Decoy RNA #008	s 5'-TTTGACGGCGCTAGGATCATCGTATTCTGGTACAGAATACTCCGTGGTTCTACCCTGTGGTATCTTCTAACGAGAGAAGAGATGATCCTAGCGCCGTCTTTTTTG-3'
Decoy RNA #008	a 5'-AATTCAAAAAAGACGGCGCTAGGATCATCTTCTCTCGTTAGAGAAGATACCACAGGGTAGAACCACGGAGTATTCTGTGACCAGAATACGATGATCCTAGCGCCGT-3'
Decoy RNA #009	s 5'-TTTGACGGCGCTAGGATCATCTCCGTGGTTCTACCCTGTGGTAGTATTCTGGTCACAGAATACTCCGTGGTTCTACCCTGTGGTAGATGATCCTAGCGCCGTCTTTTTTG-3'
Decoy RNA #009	a 5'-AATTCAAAAAAGACGGCGCTAGGATCATCTACCACAGGGTAGAACCACGGAGTATTCTGTGACCAGAATACTACCACAGGGTAGAACCACGGAGATGATCCTAGCGCCGT-3'
Decoy RNA #010	s 5'- CATCTCCGTGGTTCTACCCTGTGGTAGTATTCTGAGATCCGTGGTTCTACCCTGTGGTAAGACAGAATACTCCGTGGTTCTACCCTGTGGTA -3'
Decoy RNA #010	a 5'- CATCTACCACAGGGTAGAACCACGGAGTATTCTGTCTTACCACAGGGTAGAACCACGGATCTCAGAATACTACCACAGGGTAGAACCACGGA -3'
Decoy RNA #011	s 5'- CATCTCCGTGGTTCTACCCTGTGGTAGTATTCTGTCCGTGGTTCTACCCTGTGGTAGTATTCTGGTCACAGAATACTCCGTGGTTCTACCCTGTGGTACAGAATACTCCGTGGTTCTACCCTGTGGTA -3'
Decoy RNA #011	a 5'- CATCTACCACAGGGTAGAACCACGGAGTATTCTGTACCACAGGGTAGAACCACGGAGTATTCTGTGACCAGAATACTACCACAGGGTAGAACCA CGGACAGAATACTACCACAGGGTAGAACCACGGA -3'
Decoy RNA #012	s 5'- CATCTCCGTGGTTCTACCCTGTGGTAGTATTCTGTCCGTGGTTCTACCCTGTGGTAGTATTCTGAGATCCGTGGTTCTACCCTGTGGTAAGACA GAATACTCCGTGGTTCTACCCTGTGGTACAGAATACTCCGTGGTTCTACCCTGTGGTA -3'
Decoy RNA #012	a 5'- CATCTACCACAGGGTAGAACCACGGAGTATTCTGTACCACAGGGTAGAACCACGGAGTATTCTGTCTTACCACAGGGTAGAACCACGGATCTCA GAATACTACCACAGGGTAGAACCACGGACAGAATACTACCACAGGGTAGAACCACGGA -3'
Decoy RNA #013	s 5'- CATCAACTCCGTGGTTCTACCCTGTGGTACAAGTATTCTGGTACAGAATACTCCGTGGTTCTACCCTGTGGTACAA -3'
Decoy RNA #013	a 5'- CATCTGTACCACAGGGTAGAACCACGGAGTTGTATTCTGTGACCAGAATACTGTACCACAGGGTAGAACCACGGAGTT -3'
Decoy RNA #014	s 5'- TTTGACGGCGCTAGGATGCTTGGATCCGTGGTTCTAACCTGTGGTAAGGAAGCATCCTAGCGCCGTCTTTTTTG -3'
Decoy RNA #014	a 5'- AATTCAAAAAAGACGGCGCTAGGATGCTTCCTTACCACAGGGTAGAACCACGGATCCAAGCATCCTAGCGCCGT -3'
Decoy RNA #015	s 5'- TTTGACGGCGCTAGGATGCTTGGATCCGTGGTTCTAATCCCTGTGGTAAGGAAGCATCCTAGCGCCGTCTTTTTTG -3'
Decoy RNA #015	a 5'- AATTCAAAAAAGACGGCGCTAGGATGCTTCCTTACCACAGGGATTAGAACCACGGATCCAAGCATCCTAGCGCCGT -3'
Decoy RNA #016	s 5'- TTTGACGGCGCTAGGATGCTTGGATCCGTGGTTCTAATCCCTGTGGTAAGGAAGCATCCTAGCGCCGTCTTTTTTG -3'
Decoy RNA #016	a 5'- AATTCAAAAAAGACGGCGCTAGGATGCTTCCTTACCACAGGGAGTTAGAACCACGGATCCAAGCATCCTAGCGCCGT -3'

Continued Supplementary Table S5.

Primers	Sequence
Decoy RNA #017	s 5'- TTTGACGGCGCTAGGATGCTTGGATCCGTGGTTCTAATCTCCCTGTGGTAAGGAAGCATCCTAGCGCCGTCTTTTTTG -3'
Decoy RNA #017	a 5'- AATTCAAAAAAGACGGCGCTAGGATGCTTCCTTACCACAGGGAGATTAGAACCACGGATCCAAGCATCCTAGCGCCGT -3'
Decoy RNA #018	s 5'- CATCCTCCGTGGTTCTAATCTCCCTGTGGTACGTATTCTGGTCACAGAATACCTCCGTGGTTCTAATCTCCCTGTGGTACG -3'
Decoy RNA #018	a 5'- TCATCGTACCACAGGGAGATTAGAACCACGGAGGTATTCTGTGACCAGAATACGTACCACAGGGAGATTAGAACCACGGAG -3'
Decoy RNA #019	s 5'- CATCCCTCCGTGGTTCTAATCTCCCTGTGGTACCGTATTCTGGTCACAGAATACCCTCCGTGGTTCTAATCTCCCTGTGGTACCG -3'
Decoy RNA #019	a 5'- TCATCGGTACCACAGGGAGATTAGAACCACGGAGGGTATTCTGTGACCAGAATACGGTACCACAGGGAGATTAGAACCACGGAGG -3'
Decoy RNA #020	s 5'- CATCAACTCCGTGGTTCTAATCTCCCTGTGGTACAAGTATTCTGGTCACAGAATACAACCTCCGTGGTTCTAATCTCCCTGTGGTACAAG -3'
Decoy RNA #020	a 5'- TCATCTTGTACCACAGGGAGATTAGAACCACGGAGTTGTATTCTGTGACCAGAATACTTGTACCACAGGGAGATTAGAACCACGGAGTT-3'
Decoy RNA #021	s 5'- CATCACCTCCGTGGTTCTAATCTCCCTGTGGTACCCAGTATTCTGGTCACAGAATACACCCTCCGTGGTTCTAATCTCCCTGTGGTACCCAG -3'
Decoy RNA #021	a 5'- TCATCTGGGTACCACAGGGAGATTAGAACCACGGAGGGTGTATTCTGTGACCAGAATACTGGGTACCACAGGGAGATTAGAACCACGGAGGGT -3'
Decoy RNA #022	s 5'- CATCAACCTCCGTGGTTCTAATCTCCCTGTGGTACCCAAGTATTCTGGTCACAGAATACAACCTCCGTGGTTCTAATCTCCCTGTGGTACCCAAG-3'
Decoy RNA #022	a 5'- TCATCTTGGGTACCACAGGGAGATTAGAACCACGGAGGGTGTATTCTGTGACCAGAATACTTGGGTACCACAGGGAGATTAGAACCACGGAGGGTT-3'
Decoy RNA #023	s 5'- CGTCTCACATCAACTCCGTGGTTCTAATCTCCCTGTGGTACAAGCGACAAGAACTCCGTGGTTCTAATCTCCCTGTGGTACAAGTATTCTGAACT CCGTGGTTCTAATCTCCCTGTGGT-3'
Decoy RNA #023	a 5'- CGTCTCATCATCTTGTACCACAGGGAGATTAGAACCACGGAGTTGCGACAAGTTGTACCACAGGGAGATTAGAACCACGGAGTTGTATTCTGTTG TACCACAGGGAGATTAGAACCACGG-3'

Supplementary Table S6. Primer pairs used for the construction of luciferase reporter vectors.

Primers	Sequence
pTK4.12 insert	s 5'- AATTAATAATGACTCGAGT-3'
pTK4.12 insert	a 5'- CTAGACTCGAGTCATTATT-3'
pGL4.74-T21	s 5'- CTAGACCGGAATTCTCAACATCAGTCTGATAAGCTACTCGAGCGGAGGCCGG-3'
pGL4.74-T21	a 5'- CCTCCGCTCGAGTAGCTTATCAGACTGATGTTGAGAATTCCGGT-3'
pGL4.74-T16	s 5'- CTAGACCGGAATTCCGCCAATATTTACGTGCTGCTACTCGAGCGGAGGCCGG-3'
pGL4.74-T16	a 5'- CCTCCGCTCGAGTAGCAGCACGTAATATTGGCGGAATTCCGGT-3'

Supplementary Table S7. Primer pairs used for the construction of sponge-miR-21 expression vectors.

Primers		Sequence
sponge-miR-21	s	5'- CTCGAGTAACTCAACATCAGGACATAAGCTAAGTCTCAACATCAGGACATAAGCTATCAGTCAACATCAGGACATAAGCTACTGATCAACATCAGGACATAAGCTA -3'
sponge-miR-21	a	5'- ACCGGTTAGCTTATGTCCTGATGTTGACCGATAGCTTATGTCCTGATGTTGACAGTTAGCTTATGTCCTGATGTTGAGTTCTAGCTTATGTCCTGATGTTGATCAG -3'

Supplementary Table S8. Probes used for Northern blot analysis.

Primers	Sequence
TuD RNA	5'- GTTGATGATCCTAGCGCCGTC -3'
miR-21	5'- TCAACATCAGTCTGATAAGCTA -3'
Y4 scRNA	5'- GCAGTGGGGGGTTGTATACCAAC -3'
ACA1 snoRNA	5'- GTGATGGAAGCATAACCTGTCTC -3'

Supplementary Table S9. Sequences of LNA/DNA antisense oligos.

Primers	Sequence
LNA-miR21	5' - TCAACAT <u>CAGTCTGATA</u> AAGCTA -3'
LNA-NC	5' - CATTAA <u>TGTCGGACA</u> ACTCAAT -3'

LNAs are indicated by underline.