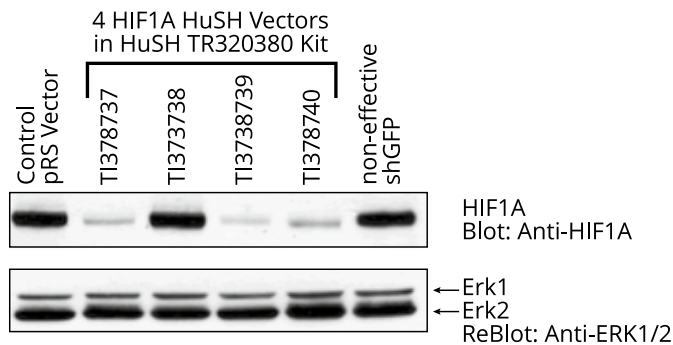


HuSH-29 shRNA & Trilencer-27 siRNA

In vitro assessment of shRNA targeting HIF1A



Downregulation of HIF1A Expression by HuSH Constructs

Key publications

1. Suppression of Sproutys Has a Therapeutic Effect for a Mouse Model of Ischemia by Enhancing Angiogenesis, PLoS ONE. 2009; 4(5): e5467 [In vivo application]
2. Androgen-induced TOP2B-mediated double-strand breaks and prostate cancer gene rearrangements, Nature Genetics (4 July 2010) doi:10.1038/ng.613 Article [shRNA targeting TOP2B in GFP vector]
3. EMX2 is epigenetically silenced and suppresses growth in human lung cancer, Oncogene (9 August 2010) doi:10.1038/onc.2010.330 Short Communication [shRNA targeting EMX2 in RFP Vector]

Learn more about our shRNA at www.origene.com/shran

In vivo effects of shRNA targeting Sprouty4

(Cat# TR509780) PLoS ONE. 2009; 4(5): e5467



Trilencer-27 siRNA Guaranteed gene silencing for human genes

Similar to HuSH-29 shRNA, OriGene's Trilencer-27 siRNA utilizes a 27mer Dicer-Substrate design that has the advantages over traditional 21mer of improved efficacy and minimal interferon response.

Features & Benefits

- **Genomewide coverage** against human, mouse and rat
- **Higher potency & minimal interferon response**
- **siRNA kit:** 3 gene-specific siRNAs + 1 negative control

siTRAN 1.0 siRNA transfection reagent

- Dual purpose reagent—transfect both siRNA duplex and corresponding cDNA clone
- High transfection efficiency and low cytotoxicity
- Cat # TT300001, TT300002 & TT300003

Comprehensive coverage for both human and mouse

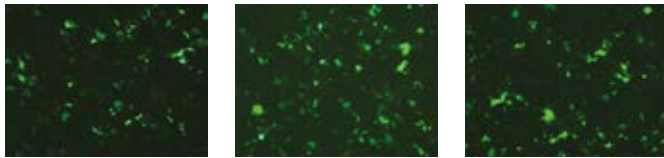
OriGene provides clones for over-expression of microRNA (miRNA) of your choice. OriGene's miRNA precursor contains pre-miRNA (60-70nt) with 250-300 nts up- and down-stream of flanking sequence. It was amplified from human genomic DNA and cloned into OriGene's pCMV6-Mir Vector. Upon transfection, the cellular machinery will process the CMV-driven expression of miRNA precursor into mature miRNA and cellular function can be analyzed.

Features & Benefits

- Genome wide miRNA coverage — 652 human and 486 mouse
- Sequence confirmation of the precursor miRNA
- GFP for transfection monitoring
- Neomycin selection for stable cell establishment
GFP transfection of microRNA expression plasmids in HEK293 cells

Read more about miRNA at www.origene.com/microRNA

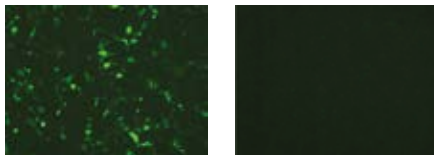
GFP transfection of miRNA expression plasmids in HEK293 cells



Mir205

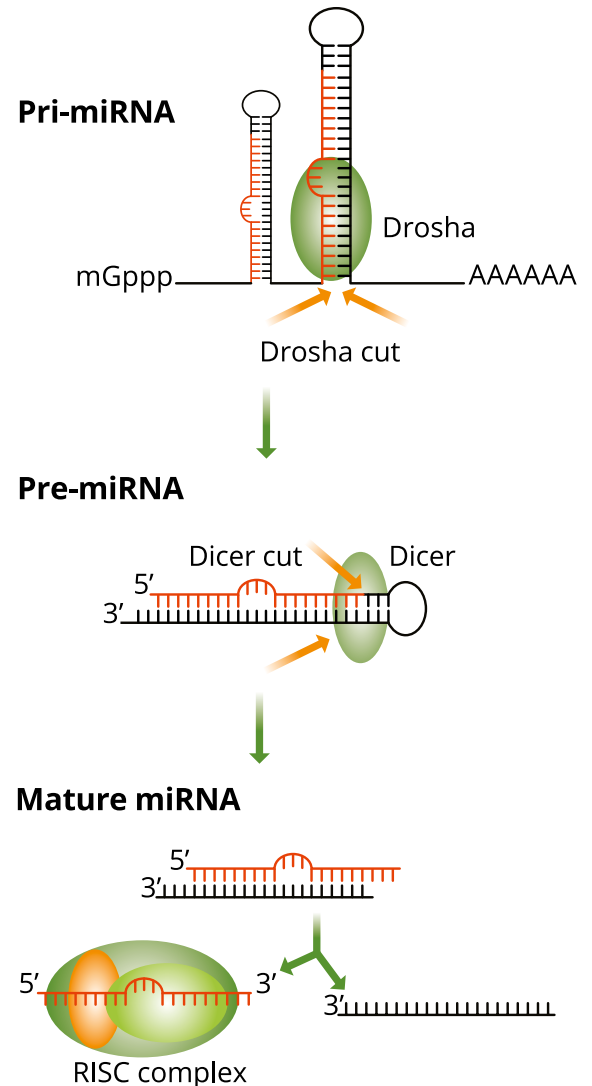
Mir143

Mir34b



Empty Vector

Non-transfected



miRNA expression plasmids

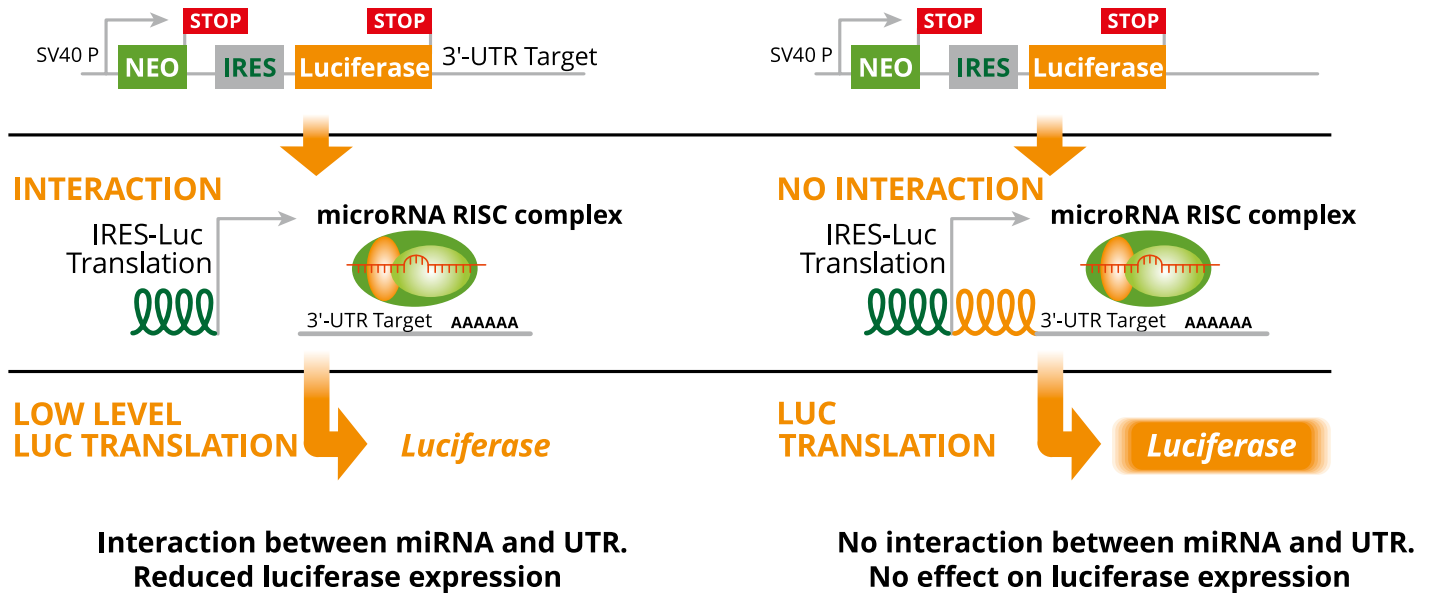
Sold individually as 10ug transfection-ready DNA or can be purchased as following sets

Catalog No.	Description
SC410001	Mouse miRNA expression plasmid set (486 vectors, 10ug each in 2-D bar coded tubes)
SC420001	Human miRNA expression plasmid set (652 vectors, 10ug each in 2-D bar coded tubes)
SC410002	Mouse miRNA expression plasmid set (486 vectors, 2ug each in 96-well plates)
SC420002	Human miRNA expression plasmid set (652 vectors, 2ug each in 96-well plates)

3'-UTR Reporter Clones for miRNA Target Validation

Luciferase reporter assays for the human genome

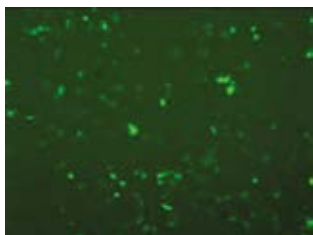
The 3'-UTR plasmids provide quantitative assessment of the inhibitory effects between miRNAs and their potential target genes. The 3'-UTR sequence of a gene was cloned downstream of the firefly luciferase gene. The chimeric transcript level is regulated by its interaction with miRNA(s), which results in varied luciferase activity quantifiable by a colorimetric assay. MiRNAs and their 3'-UTR targets can be assayed for endogenous miRNA activity or for overexpressed miRNA in a co-transfection experiment.



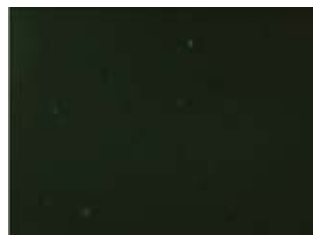
Features & Benefits

- Genome wide coverage (>20,000 human genes)
- Firefly luciferase as the easy-to-assay reporter
- RFP for transfection monitoring
- High sensitivity from IRES-driven translation of the expression cassette

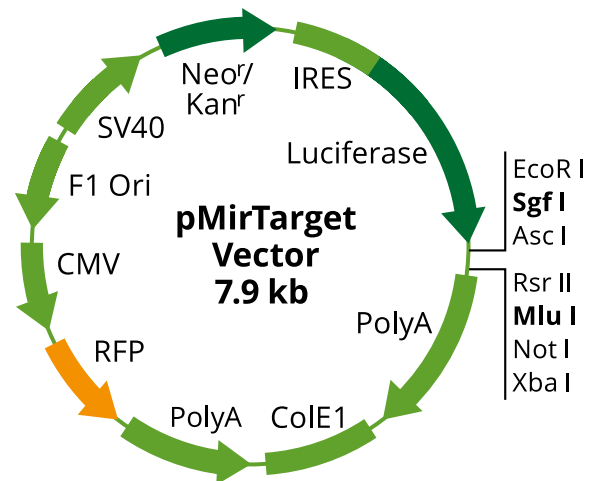
Find out more at www.origene.com/3-utr-clones



pCMV - Mir + Mir205 target



pCMV - Mir205 + Mir205 target



OriGene has used a new design adapted from C.P.Petersen et al. 2006, to dramatically increase the sensitivity of detection by decreasing the 3'UTR-luciferase reporter expression to a very low level.

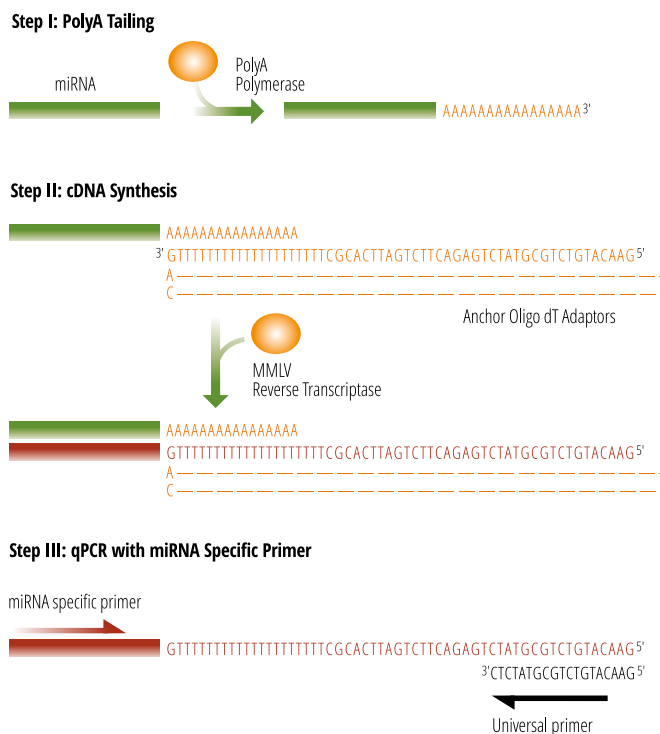
qSTAR microRNA qPCR Detection Assays

Quantify your results down to the absolute copy number!

OriGene's unique primer-based, SYBR Green qPCR miRNA detection system not only offers researchers a fast and simple method for profiling miRNA expression levels, but also provides means to quantify the results down to absolute copy number of miRNA.

Features & Benefits

- Genome wide coverage of human and mouse miRNA
- Determine absolute copy number of your miRNA with template standards
- Detect miRNA directly from total RNA samples



Products offered in qPCR miRNA detection system



*Components 2,3 & 4 are unique and should only be used alongside OriGene's qPCR miRNA detection system

First-strand cDNA Synthesis Kit

Two-step protocol

- Addition of poly (A) tail to RNA sample
- Use of anchor linker oligo dT to synthesize first-strand cDNA
- Cat# NP100041 & NP100042

miRNA Primers & Panels

- Offered as individual primers, genome wide panels, & custom-mixed panels
- Pre-validated in an experiment against normal and ovarian cancer samples

miRNA Copy Number Standards

- Unique offering only from OriGene
- Determine the absolute transcript copy number of an experiment sample using the standard curve method

Find more information at www.origene.com/qpcr-mirna

OriGene, Your Partner in Research, Diagnostics and Beyond

- cDNA Clones/Lenti Particles
- CRISPR/Cas9/sgRNA
- Recombinant Proteins
- Antibodies
- RNAi
- Normal & Cancer Tissues



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