shRNA & siRNA

RNAi Gene Silencing

scramble

control

OriGes TR3001 nfL nt#1

Choose OriGene. Comprehensive and innovative RNAi tools.

- + Genome wide coverage of Human, Mouse & Rat genes
- + Custom services for shRNA and miRNA
- + Over 600 RNAi citations
- + Scrambled control included in shRNA & siRNA kits FREE
- + Guaranteed Knockdown

HuSH[™] shRNA Plasmid Panels (29-mer)

APPLICATION GUIDE

HuSH

В

C D

GI31165 GI31166 NOTCH VOTCH 87771 87777

Trilencer-27 siRNA Knockdown Duplexes

APPLICATION GUIDE



shRNA	siRNA	miRNA	
3 Retroviral vector options (No reporter / GFP / RFP) 1 Lentiviral vector option (GFP / RFP reporter)	Unique 27mer siRNA duplexes produce 10-fold higher potency and specificity vs 21mers	GFP reporter with Neomycin	
5 ug transfection-ready DNA per construct	2 nmol per duplex	10 ug per construct	
Guaranteed knockdown (>=70%)	Guaranteed knockdown (>=70%)	Fully Sequenced	
4 constructs + 1 negative scrambled control	3 duplexes + 1 negative control		
Lentiviral Packaging Kit	siTran1.0 Transfection Rgt. 3' UTR Clones for target val		

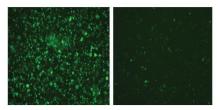
Need Custom shRNA? ExactHuSH is the answer!

+ target other species

+ design it yourself or let us help

- Effective Knockdown -

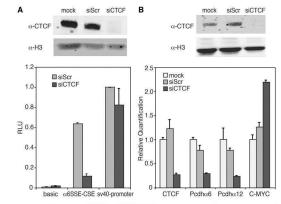
shRNA - 29mer



Lentiviral transduction (4 days) Vector only (left) vs shRNA targeting tGFP (right)

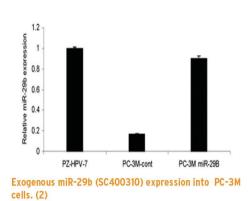
siRNA - 27mer

+ multiple vector selections



Knocking down CTCF (SR307273) down-regulated the expression of endogenous $\text{Pcdh}\alpha$ genes. (1)

miRNA - Expression Plasmid





https://www.origene.com/products/rnai

RNAi Gene Silencing

shRNA? siRNA? miRNA? With so many choices, we've put together a guide to help you decide.

	shRNA	siRNA	miRNA
Gene-specific knockdown	Yes	Yes	No, regulates multiple genes
Transient transfection	Yes	Yes	Yes
Stable transfection	Yes	No	Yes
Infection	Yes	No	No
Renewable RNAi resource	Yes	No	Yes

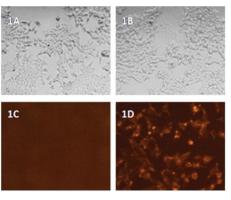
Sample RNAi Citations

- + Tubulin Acetyltransferase aTAT1 Destabilizes Microtubules Independently of Its Acetylation Activity *Mol. Cell. Biol., March 2013* [ATAT1 shRNA]
- + miRNA-29b Suppresses Prostate Cancer Metastasis by Regulating Epithelial–Mesenchymal Transition Signaling Mol. Cancer Ther., May 2012; 11: 1166 - 1173 [mir-29b miRNA]
- + Desmoplakin acts as a tumor suppressor by inhibition of Wnt/ß-catenin signaling pathway in human lung cancer *Carcinogenesis, Oct 2012* [DSP siRNA]
- + Taxifolin Enhances Andrographolide-Induced Mitotic Arrest and Apoptosis in Human Prostate Cancer Cells via Spindle Assembly Checkpoint Activation *PLoS One. January 2013* [siTran 1.0]

Supporting Products

siTran1.0 siRNA Transfection Reagent (TT300001)

High efficient transfection reagent



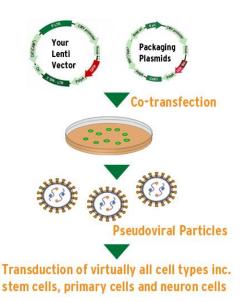
- siTran

+ siTran

HEK293 cells transfected with TYE-563 labeled siRNA. Phase contrast, top panels. Fluorescence: bottom panels

Lentiviral Packaging Kit (TR30037)

Optimized for high packaging efficiency





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