

## 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**



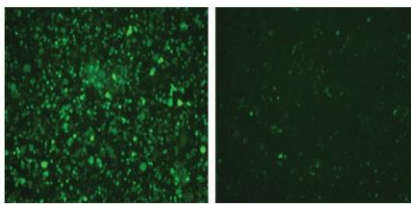
shRNA	siRNA	miRNA
3 Retroviral vector options (No reporter / GFP / RFP) 1 Lentiviral vector option (GFP / RFP reporter)	Unique 27mer siRNA duplexes produce 10-fold higher potency and specificity vs 21mers	GFP reporter with Neomycin
5 ug transfection-ready DNA per construct	2 nmol per duplex	10 ug per construct
Guaranteed knockdown ( $\geq 70\%$ )	Guaranteed knockdown ( $\geq 70\%$ )	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 validation

## Need Custom shRNA? ExactHuSH is the answer!

- + target other species
- + multiple vector selections
- + design it yourself or let us help

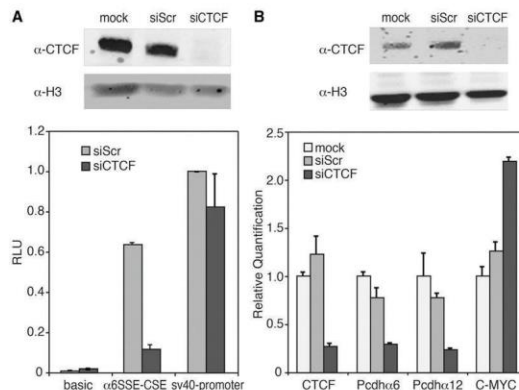
## Effective Knockdown

## shRNA - 29mer



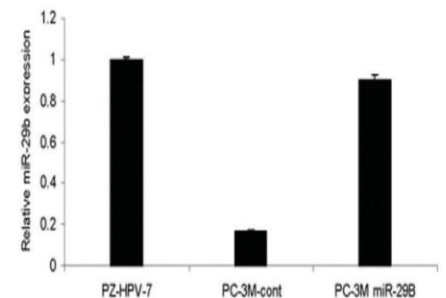
Lentiviral transduction (4 days) Vector only (left)  
vs shRNA targeting tGFP (right)

## siRNA - 27mer



Knocking down CTCF (SR307273) down-regulated the expression  
of endogenous Pcdha genes. (1)

## miRNA - Expression Plasmid



Exogenous miR-29b (SC400310) expression into PC-3M  
cells. (2)

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

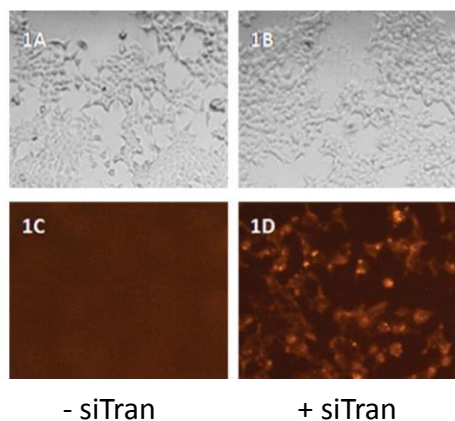
### Sample RNAi Citations

- + Tubulin Acetyltransferase  $\alpha$ TAT1 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/ $\beta$ -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 [siTran1.0]

### Supporting Products

#### siTran1.0 siRNA Transfection Reagent (TT320001)

High efficient transfection reagent



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

#### Lentiviral Packaging Kit (TR30037)

Optimized for high packaging efficiency

