

# Another Successful Block



Effective gene silencing using low amounts of siRNA and lipid.



# siLent-ect — the first step

500

0

2

10

Bio-Rad's siLentFect lipid reagent was developed specifically for the delivery of siRNA to cultured mammalian cells. Its high affinity for siRNA and exceptional delivery characteristics will help you achieve robust silencing of your target gene with low lipid volumes and low concentrations of siRNA.

### **Key Features and Benefits**

- Effective transfection of siRNA to a broad range of cell lines — use one lipid reagent for effective knockdown in all of your cell lines
- Low volumes of lipid required per transfection ---minimize cell stress while saving money on each transfection
- less siRNA reduces the risk of off-target effects
- Low cytotoxicity achieve robust knockdown while maintaining culture health

# **Examples of Successfully Transfected Cell Lines**

Cell Line	Cell Type
A549	Human lung carcinoma
C166-GFP	Mouse yolk sac endothelial
Caco-2	Human colon adenocarcinoma
CHO-K1	Hamster ovary epithelial
COS-7	SV40-transformed African green monkey kidney
HEK 293	Human kidney epithelial
HeLa	Human cervical adenocarcinoma
HepG2	Human liver carcinoma
HUVEC	Human umbilical vein endothelial
Jurkat	Human T lymphoblast
LNCap	Human epithelial prostate carcinoma
MCF-7	Human breast adenocarcinoma
NIH-3T3	Mouse embryo fibroblast
Primary fibroblast	Human foreskin fibroblast
Primary keratinocyte	Human keratinocytes
SCC12B2	Human squamous cell carcinoma

# **Ordering Information**

Catalog #	Description
<b>Reagents for</b>	siRNA Delivery
170-3360	siLentFect Lipid Reagent for RNAi, 0.5 ml
170-3361	siLentFect Lipid Reagent for RNAi, 1.0 ml
170-3362	siLentFect Lipid Reagent for RNAi, 5 x 1.0 ml
<b>Reagents for</b>	Plasmid DNA Delivery
170-3350	TransFectin™ Lipid Reagent, 0.5 ml
170-3351	TransFectin Lipid Reagent, 1.0 ml
170-3352	TransFectin Lipid Reagent, 5 x 1.0 ml

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siRNA, nM siLentFect mediates efficient transfection with low volumes of lipid and low concentrations of siRNA. A, CHO cells stably expressing the lacZ gene were grown in 24-well plates and transfected with an siRNA targeting lacZ. Cells were lysed and assayed for β-galactosidase activity 24 hr posttransfection. A significant reduction in expression of the *lacZ* gene product was observed even with low volumes of siLentFect. B, CHO cells stably expressing the luciferase gene were transfected in 96-well plates using 0.3 µl siLentFect and a 21-mer anti-luciferase siRNA. The addition of siRNA at concentrations >10 nM did not produce any further significant reduction in luciferase activity.

20

%

50

100

0

2

10 20 50



siLentFect allows effective silencing with low concentrations of siRNA.  $\ensuremath{\mathsf{HeLa}}$ cells were transfected with siLentFect and either 10 nM or 100 pM of a 27-mer siRNA targeted against three different endogenous genes. RT-qPCR was used 24 hr posttransfection to measure expression relative to a nonsilencing control. For real-time detection, total RNA was isolated using the Aurum™ total RNA mini kit and analyzed by the Experion™ automated electrophoresis system. For RTqPCR, cDNA was synthesized using the iScript<sup>™</sup> cDNA synthesis kit and amplified with iQ<sup>™</sup> SYBR<sup>®</sup> Green supermix and the iCycler iQ<sup>®</sup> real-time detection system.