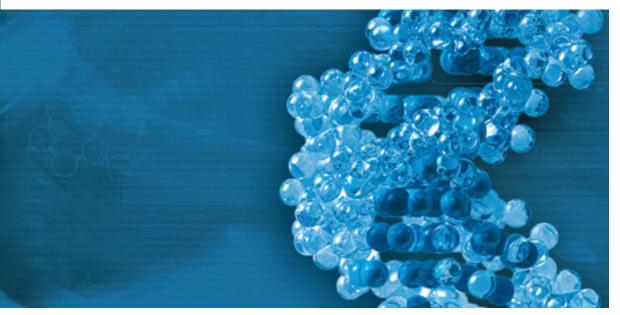
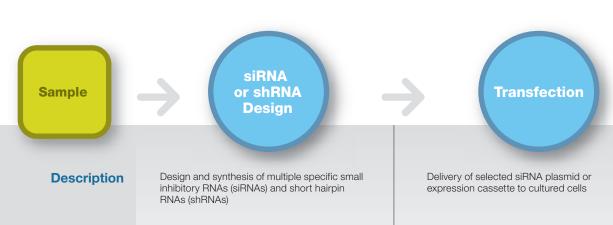
Gene Silencing/RNAi



Life Science Research
Gene Silencing/RNAi



Gene Silencing/RNAi



Applications

Gene silencing and gene expression analysis
Gene silencing and protein expression analysis
Gene silencing and mRNA quantitation
Spotting of siRNA

Technologies

- •
- siRNA or shRNA design

Lipid-mediated transfection Electroporation

Biolistic particle delivery

Microinjection

Chemically mediated transfection Vector-mediated transfection

Related Products



siLentMer™ validated Dicer-substrate siRNA duplexes

siLentMer predesigned Dicer-substrate siRNA duplexes

siLentMer delivery optimization kit

siLentMer starter kits

siLentMer total control kits



siLentFect™ lipid reagent for RNAi
TransFectin™ lipid reagent
Gene Pulser®/MicroPulser™ cuvettes
Gene Pulser Xcell™ total system
Helios® gene gun system
PDS-1000/He™ system





Detection and Analysis Gene and
Protein
Expression
Profile

Purification of mRNA and/or protein and sample quality assessment

Monitoring of gene silencing via gene expression at mRNA and/or protein level





mRNA

Protein sample preparation

Protein

Nucleic acid sample preparation

Protein

Automated protein electrophoresis

Protein electrophoresis

2-D electrophoresis

Protein blotting

Multiplex suspension array technology

protein

Microarray analysis Image analysis

Data analysis and bioinformatics

mRNA

Automated nucleic acid electrophoresis

Nucleic acid

electrophoresis

Nucleic acid blotting

Quantitative PCR (qPCR)

Microarray analysis

Image analysis

Data analysis and bioinformatics











Aurum[™] total RNA kits
PureZOL[™] RNA isolation reagent
ReadyPrep[™] protein extraction kit
(total protein)
ReadyPrep 2-D cleanup kit

Laemmli sample buffer







Experion™ automated electrophoresis system iQ™5 multicolor real-time PCR detection system PROTEAN® IEF system
BioOdyssey™ Calligrapher™ miniarrayer
Bio-Plex® 200 system

RNA interference (RNAi) is one of the most powerful and widely used techniques available for the specific inhibition of gene expression. Using RNAi, researchers can specifically and potently modulate the expression of target genes. By analyzing resulting changes in gene expression at both the protein and RNA level, researchers are rapidly advancing the understanding of gene function. Performing RNAi experiments involves several steps, and at each step it is important to eliminate variables, use appropriate controls, and work with reagents and instrumentation that provide sensitive, reliable results. Bio-Rad simplifies the RNAi workflow by providing scientists a broad range of RNA solutions, featuring validated siRNAs and the most comprehensive suite of delivery and detection tools for genomics and proteomics research — a unique offering among life science suppliers. To learn more about Bio-Rad's RNAi-enabling technologies, visit us on the Web at www.bio-rad.com/RNAi/ or contact your local Bio-Rad office.

For a complete list of products and related product information, refer to the 2006/2007 catalog, visit us on the Web at www.bio-rad.com, or contact your local Bio-Rad representative.

Ordering Information

Catalog #	Description	Catalog #	Description
siRNA or shRNA Design		Detection and Analysis	
SILEHLIVIER DICER-SUDSTRATE SINNA DUDIEXES			iQ5 Multicolor Real-Time PCR Detection System,
Varies	siLentMer Validated Dicer-Substrate siRNA Duplexes, 2 nmol, designed with proven criteria and functionally tested for ≥85% silencing		includes iCycler base, optics module, software CD-ROM, 5 installed filter sets, 96-well reaction module, calibration solutions, optical-quality 96-well PCR plates, Microseal 'B' seals, communication
Varies	siLentMer Predesigned Dicer-Substrate siRNA Duplexes, 2 nmol, designed with proven criteria	165-4000	cables, power cord, quick reference cards, instructions PROTEAN IEF System, 90–240 VAC
siLentMer De	elivery Optimization Kit	169-2000	BioOdyssey Calligrapher MiniArrayer, 115 V ReadyPrep 2-D Starter Kit, includes protein sample and reagents sufficient to rehydrate, focus, and transfer to second-dimension gels six 17 cm, ten 11 cm, or sixteen 7 cm ReadyStrip IPG strips (IPG strips and
174-9950	siLentMer Delivery Optimization Kit, includes 1.0 nmol fluorescently labeled siLentMer nonsilencing siRNA, 0.2 ml siLentFect lipid reagent, 1.0 ml siLentMer siRNA resuspension buffer	163-2105	
siLentMer St	arter Kits		precast SDS-PAGE gels and gel stains not included)
174-9960	siLentMer Starter Kit for Human GAPDH, includes siLentMer validated human GAPDH siRNA, siLentMer nonsilencing siRNA, siLentFect lipid reagent, siLentMer siRNA resuspension buffer	161-0490 161-0449	Flamingo Fluorescent Gel Stain, 10x solution, 20 ml Silver Stain Plus™ Kit, includes fixative enhancer concentrate, silver complex solution, reduction moderator solution, image development reagent,
174-9961	siLentMer Starter Kit for GFP, includes siLentMer		development accelerator reagent
	validated GFP siRNA, siLentMer nonsilencing siRNA,	Varies	ReadyStrip [™] IPG Strips
	siLentFect lipid reagent, siLentMer siRNA	Varies	Criterion Gels
	resuspension buffer	171-000201	Bio-Plex 200 System
siLentMer To	otal Control Kits*	700-7000	Experion System, for protein analysis (analysis kits
174-9970	siLentMer Total Control Kit for Human GAPDH	700 7100	sold separately)
174-9971	siLentMer Total Control Kit for Human HPRT	700-7102	Experion Pro260 Analysis Kit for 25 Chips, includes
174-9972	siLentMer Total Control Kit for Human Lamin A/C		25 Pro260 chips, Experion Pro260 reagents and supplies for 25 chips
174-9973	siLentMer Total Control Kit for Human Cyclophilin	700-7104	Experion RNA StdSens Analysis Kit for 25 Chips,
174-9974	siLentMer Total Control Kit for Human β-Actin	700-7104	includes 25 RNA StdSens chips, Experion RNA
174-9975	siLentMer Total Control Kit for Human β-Tubulin		StdSens reagents and supplies for 25 chips
174-9976 174-9977	siLentMer Total Control Kit for GFP siLentMer Total Control Kit for Luciferase	700-7106	Experion RNA HighSens Analysis Kit for 25 Chips,
	siLentMer validated siRNA, fluorescently labeled siLentMer siRNA, siLentMer nonsilencing siRNA, siLentFect lipid		includes 25 RNA HighSens chips, Experion RNA HighSens reagents and supplies for 25 chips

reagent, siLentMer siRNA resuspension buffer

Transfection

170-3360	siLentFect Lipid Reagent for RNAi, 0.5 ml
170-3350	TransFectin Lipid Reagent, 0.5 ml
165-2088	Gene Pulser/MicroPulser Cuvettes, 0.4 cm gap, 50
165-2660	Gene Pulser Xcell Total System, for mammalian
	and microbial cells, includes main unit, CE module,
	PC module, ShockPod chamber, 15 sterile
	cuvettes, instructions
165-2431	Helios Gene Gun System, 100/120 V
165-2432	Helios Gene Gun System, 220/240 V
165-2257	PDS-1000/He System
Sample Prep	paration
700 0000	Average Total DNA OC Kit Ov OC well propo

Sample Preparation			
732-6800	Aurum Total RNA 96 Kit, 2 x 96-well preps		
732-6890	PureZOL RNA Isolation Reagent, 100 ml		
732-6370	ReadyPrep Protein Extraction Kit (Total Protein),		
	20 preps		
163-2130	ReadyPrep 2-D Cleanup Kit, 50 preps		
161-0737	Laemmli Sample Buffer, 30 ml		

siLentMer products are manufactured by Integrated DNA Technologies, Inc. (IDT) and are for research use only. For custom siRNA synthesis, contact IDT.

Biolistic technology is covered by patents owned by E.I. du Pont de Nemours and Co. The technology is exclusively licensed to Bio-Rad

Certain arrays and/or the method of preparation, analysis, or use may be covered by patents or other intellectual property rights owned by third parties

The Bio-Plex suspension array system includes fluorescently labeled microspheres and instrumentation licensed to Bio-Rad Laboratories, Inc. by the Luminex Corporation.

Bio-Rad's real-time thermal cyclers are licensed real-time thermal cyclers under Applera's United States Patent No. 6,814,934 B1 for use in research and for all other fields except the fields of human diagnostics and veterinary diagnostics.



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