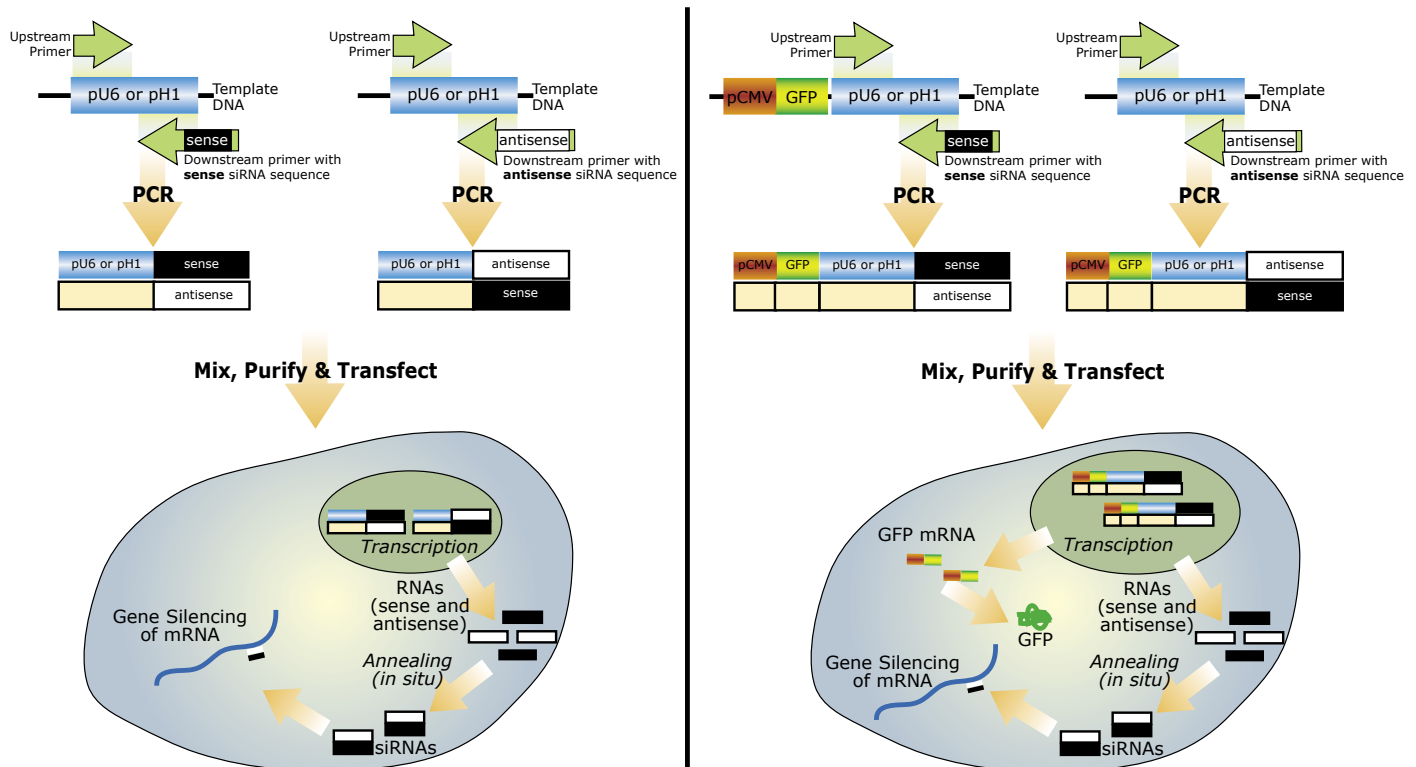


- Greater than 80% savings over synthetic siRNAs
- Screen 20 siRNA sequences per kit
- High siRNA expression optimized for H1 and U6 promoters
- Available with GFP reporter gene tracking
- Fast and easy expression of siRNAs in vitro without cloning

The GTS GeneSilencer® PCR kits provide a fast, convenient, and effective way to produce siRNAs in vitro without the need for cloning. The kits rely on the PCR technology to enable the production of sequence specific siRNAs. The desired siRNA expression cassettes are generated by a one step PCR, and are then transfected into cells. Subsequently, the cassettes are transcribed to produce sense and anti-sense siRNAs, which anneal in situ to form the duplex siRNAs that are effective for gene silencing.

The GeneSilencer PCR kits contain DNA templates with the U6 or the H1 RNA polymerase III promoters, allowing optimal expression in a wide variety of cell types. Additionally, these kits are available with a GFP reporter gene cassette to allow easy determination of PCR fragment's transfection efficiency.

Figure 1. Co-Transfection Silencing with GeneSilencer siRNA PCR Fragments



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Figure 2: Silencing with GeneSilencer PCR Fragments.

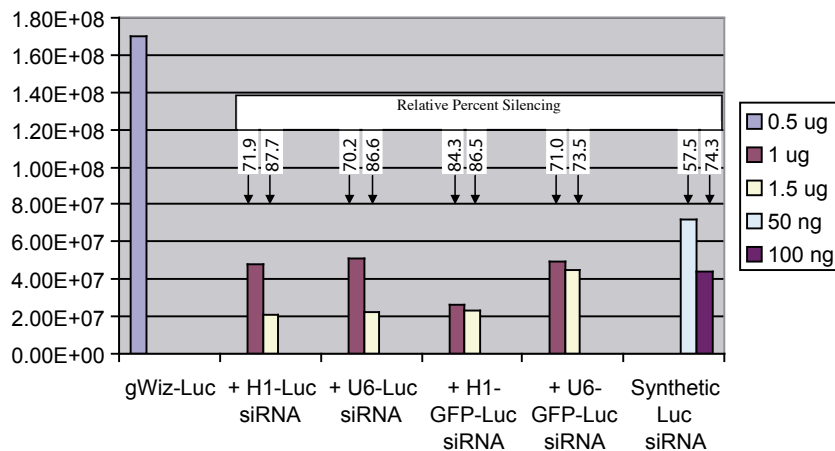


Figure 2. Four different siRNAs against the Luciferase gene (H1-Luc, U6-Luc, H1-GFP-Luc, U6-GFP-Luc) were produced using the different primer pairs and templates enclosed in the kit. Synthetic Luciferase siRNA was obtained from Dharmacon, Inc. (Lafayette, CO). Varying amounts of each siRNA were co-transfected into COS cells with 0.5mg gWiz-Luciferase plasmid using the GeneSilencer® siRNA Transfection Reagent. Luciferase expression levels were measured relative to background and normalized to reflect total amount of Luciferase per mg of total protein per well. Percent silencing levels relative to gWiz-Luciferase-only expression are shown.

GeneSilencer® PCR Kit Components			
Product Name	Description	Kit Contents	Catalog
H1 PCR Kit (20 reactions)	For transcribing siRNAs using the H1 RNA Pol III promoter	1 x 100 µl H1 Template, 10 ng/µl 1 x 20 µl H1 Upstream Primer, 1 µg/µl 1 x 20 µl H1 Downstream Control Sense Primer (Luc.), 1 µg/µl 1 x 20 µl H1 Downstream Control Antisense Primer (Luc.), 1 µg/µl	P140100
U6 PCR Kit (20 reactions)	For transcribing siRNAs using the U6 RNA Pol III promoter	1 x 100 µl U6 Template, 10 ng/µl 1 x 20 µl U6 Upstream Primer, 1 µg/µl 1 x 20 µl U6 Downstream Control Sense Primer (Luc.), 1 µg/µl 1 x 20 µl U6 Downstream Control Antisense Primer (Luc.), 1 µg/µl	P640100
H1-GFP PCR Kit (20 reactions)	For transcribing siRNAs fused to GFP using the H1 RNA Pol III promoter.	1 x 100 µl H1-GFP Template, 10 ng/µl 1 x 20 µl H1-GFP Upstream Primer, 1 µg/µl 1 x 20 µl H1-GFP Downstream Control Sense Primer (Luc.), 1 µg/µl 1 x 20 µl H1-GFP Downstream Control Antisense Primer (Luc.), 1 µg/µl	P140300
U6-GFP PCR Kit (20 reactions)	For transcribing siRNAs fused to GFP using the U6 RNA Pol III promoter.	1 x 100 µl U6-GFP Template, 10 ng/µl 1 x 20 µl U6-GFP Upstream Primer, 1 µg/µl 1 x 20 µl U6-GFP Downstream Control Sense Primer (Luc.), 1 µg/µl 1 x 20 µl U6-GFP Downstream Control Antisense Primer (Luc.), 1 µg/µl	P640300

Storage

The GeneSilencer® PCR kits are shipped frozen. For maximum stability, we recommend that you store the siRNA Expression Vector Kits at -20°C upon receipt.

GeneSilencer™ siRNA Transfection Reagent			
Promoter/reporter	Quantity	Catalog	Price
H1 PCR Kit	20 rxns	P140100	\$195
U6 PCR Kit	20 rxns	P640100	\$195
H1-GFP PCR Kit	20 rxns	P140300	\$225
U6-GFP PCR Kit	20 rxns	P640300	\$225

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Gene Therapy Systems, Inc.

10190 Telesis Court, San Diego, CA 92121

www.genetherapysystems.com

Ph. 858-457-1919 Toll-free. 888-428-0558

Fax. 858-558-3617 or 858-623-9494