Stealth RNAi® Negative Control Duplexes

Package Contents

Size
20 µM stock in solution

Available Duplexes

- 1.75 mL Nuclease-free Water
- 1× RNA Annealing/Dilution Buffer

Storage Conditions

- Store at or below –20°C.
- Do not store in a frost-free freezer. (Dried oligonucleotides are shipped at room temperature.)

Required Materials

- RNase-free reagents
- Transfection reagent e.g. Lipofectamine® RNAiMAX

Timing

Transfection preparation: 15 minutes
Final incubation: 1–3 days

Selection Guide

siRNAs
Go online to view related products.

Product Description

- Stealth RNAi® are chemically modified, 25-mer, double-stranded RNA, with no overhangs, that show effective knockdown and have a low off target profile.
- Stealth RNAi® Negative Control Duplexes are ideal for use in RNA interference (RNAi) experiments as a control for sequence independent effects following Stealth RNAi® delivery in any vertebrate cell line.

Important Guidelines

- Handling instructions: RNA oligonucleotides are susceptible to degradation by exogenous ribonucleases introduced during handling. Wear gloves when handling this product. Use RNase-free reagents, tubes, and barrier pipette tips.
- Transfection efficiency varies according to the cell type and transfection agent used. We recommend starting with a 10 nM final concentration of the Stealth RNAi® Negative Control Duplex to determine the optimal conditions for your desired outcomes.
- Transfect Stealth RNAi® Negative Control Duplex using the same methodology as for your experimental siRNA duplexes.

Online Resources

Visit our product page for additional information and protocols. For support, visit www.lifetechnologies.com/support.

For Research Use Only. Not for use in diagnostic procedures.

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Print Options

Stealth RNAi® Negative Control Duplex Characteristics

This control is designed for use in RNAi analysis to facilitate assessment and optimization of cationic lipid-mediated delivery. It has the following characteristics:

- Our Stealth RNAi® Duplexes have a proven correlation of transfection efficiency with siRNA molecules.
- Each Stealth RNAi® Negative Control Duplex is designed to minimize sequence homology to any known vertebrate transcript.
- The Stealth RNAi® Negative Control Duplexes differ from one another in their GC content, and are supplied in a ready-to-use format.
- A 1× RNA Annealing/Dilution Buffer is included for dilution of the Stealth RNAi® stock solution, if desired.

RNAi Transfection Protocol

See page 2 to view guidelines for transfecting siRNAs using Lipofectamine® RNAiMAX Reagent.

Transfection Amounts per Well

Use 10 nM siRNA duplex as a starting point.

	96-well	24-well	6-well
Final siRNA	1 pmol	5 pmol	25 pmol
Final Lipofectamine® RNAiMAX	0.3 µL	1.5 µL	7.5 µL

Limited Product Warranty and Disclaimer Details

Limited Use Label License

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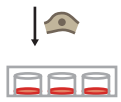
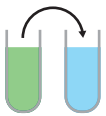
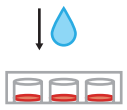
RNAi Transfection Protocol

This procedure is designed for one RNA amount combined with one amount of Lipofectamine® RNAiMAX.
The prepared mix is enough to have triplicates (96-well), duplicates (24-well), and single well (6-well) transfections, and account for pipetting variations.

Timeline		Steps
Day 0	1 	**Seed cells to be 60-80% confluent at transfection**
	2 	**Dilute Lipofectamine® RNAiMAX Reagent in Opti-MEM® Medium**
	3 	**Dilute siRNA in Opti-MEM® Medium**
Day 1	4 	**Add diluted siRNA to diluted Lipofectamine® RNAiMAX Reagent (1:1 ratio)**
	5 	**Incubate**
	6 	**Add siRNA-lipid complex to cells**
Day 2–4	7 	**Visualize/analyze transfected cells**

Procedure Details

Component	96-well	24-well	6-well
Adherent cells	1–4 × 10^4	0.5–2 × 10^5	0.25–1 × 10^6
Opti-MEM® Medium	25 µL	50 µL	150 µL
Lipofectamine® RNAiMAX Reagent	1.5 µL	3 µL	9 µL
Opti-MEM® Medium	25 µL	50 µL	150 µL
siRNA (10 µM)	0.5 µL (5 pmol)	1 µL (10 pmol)	3 µL (30 pmol)
Diluted siRNA	25 µL	50 µL	150 µL
Diluted Lipofectamine® RNAiMAX Reagent	25 µL	50 µL	150 µL
Incubate for 5 minutes at room temperature.			
Component	**96-well**	**24-well**	**6-well**
siRNA-lipid complex per well	10 µL	50 µL	250 µL
Final siRNA used per well	1 pmol	5 pmol	25 pmol
Final Lipofectamine® RNAiMAX used per well	0.3 µL	1.5 µL	7.5 µL
Incubate cells for 1–3 days at 37°C. Then, analyze transfected cells.			