Polyplus transfection™

THE DELIVERY EXPERTS

INTERFERin™-HTS

siRNA Transfection Reagent for HTS Applications

- Great silencing from at low siRNA concentration
- Designed for automated procedures
- Reproducible at all levels
- Small volume of reagent per well ► Cost effective

INTERFERin™-HTS is a **new generation** siRNA transfection reagent especially developed for high throughput screening (HTS) applications providing great silencing efficiency, excellent reproducibility and high cell viability with very low amounts of reagent.

INTERFERin™-HTS is cost-effective, easy to handle, compatible with serum and antibiotics, and comes with reverse and forward protocols for 96- and 384-well plates.

Efficient gene silencing with low cytotoxicity using a standard phenotypic assay

INTERFERin™-HTS leads to over 90% cell death in a standard phenotypic cell death assay, using 10 nM of a cell death-inducing PLK1 siRNA (Fig. 1). The assay is significant, as INTERFERin™-HTS shows minimal cytotoxicity (89% ± 7% cell viability) with non-targeting siRNA.

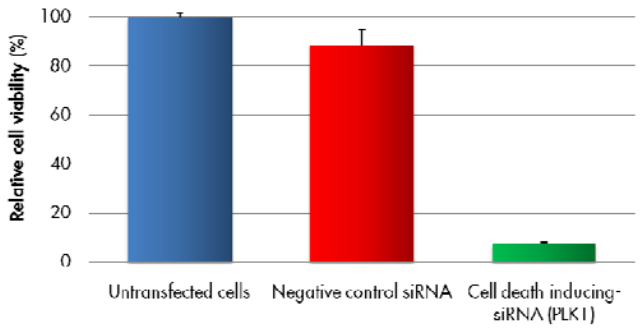

Fig. 1. Highly efficient siRNA-induced cell death in HeLa cells in 384-well plates using INTERFERin™-HTS.
HeLa cells were transfected with siRNA inducing cell death (PLK1) and negative control (non-targeting siRNA) following a reverse transfection protocol (10 nM siRNA; 0.05 µL INTERFERin™-HTS per well). Cell viability was measured by automated fluorescent microscopy after DAPI staining 72 hours after transfection (Data kindly provided by the Transfected Cell Arrays Platform IGBMC-CERBM, Illkirch, France).

New!

The highest efficiency

Transfection of a siRNA targeting endogenous lamin A/C using INTERFERin™-HTS leads to higher silencing efficiency than the same experiment performed with three other popular transfection reagents (Fig. 2).

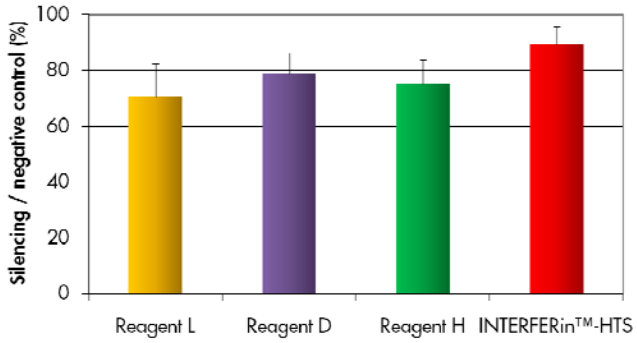

Fig. 2. siRNA transfection with INTERFERin™-HTS gives higher silencing efficiency than competitor reagents. HeLa cells were transfected in 96-well plates with 10 nM siRNA duplexes targeting lamin A/C following a reverse transfection protocol according to the manufacturer's recommendations. Lamin A/C expression was measured 24 hours after transfection by branched DNA assay and normalized to GAPDH expression.

Especially designed for automated procedures

- Easy to use: the reagent is an aqueous solution stored at 4 °C with a shelf-life of one year, compatible with the use of both serum and antibiotics.
- Reagent diluted in aqueous solution is stable for more than a week.
- siRNA/INTERFERin™-HTS complexes are stable up to 8 hours at room temperature.
- siRNA/reagent complexes can be frozen and stored at -80°C in plates.
- Reverse and forward protocols are provided for 96- and 384-well plates.

Robust - Reproducible

INTERFERin™-HTS gives highly reproducible results at all levels:

- **Well to well** ► The data presented in Figure 1 were done in triplicate yielding a very small standard deviation and highly significant comparisons (Fig.1).
- **One experiment to the next** ► Three independent transfection experiments using the same batch of INTERFERin™-HTS show identical silencing efficiencies (Fig. 3).
- **Batch to batch** ► Transfection using three different batches of INTERFERin™-HTS shows highly consistent results (Fig. 4).

With INTERFERin™-HTS, your results are reliable.

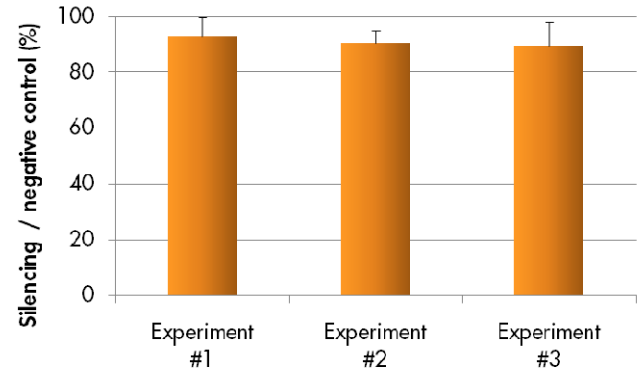

Fig. 3. Experiment to experiment reproducibility in 96-well plates. A549 cells stably expressing the luciferase gene were transfected with 10 nM GL3Luc siRNA and negative control duplexes using 0.05 µL of INTERFERin™-HTS in 3 independent experiments. Luciferase expression was measured 48 hours after transfection.

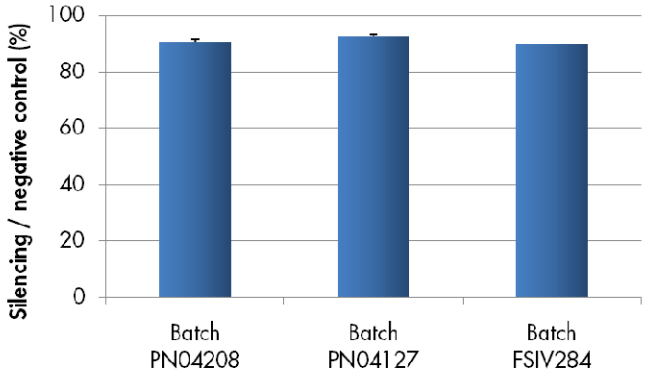

Fig. 4. Batch to batch reproducibility in 96-well plates. A549 cells stably expressing the luciferase gene were transfected with 10 nM GL3Luc siRNA duplexes and negative control using 0.05 µL of INTERFERin™-HTS from 3 different batches. Luciferase expression was measured 48 hours after transfection.

Lower reagent volume per well ► more transfections per vial

Higher inhibition of gene expression is obtained with INTERFERin™-HTS using lower amounts of reagent than competitors; at least twice as many plates can be transfected with the same vial size (Table 1).

Table 1. Volume of reagent (INTERFERin™-HTS and competitors) required per well in 96-well plates and number of transfected plates with 1.5 mL reagent size, according to the manufacturer's recommendations for siRNA reverse transfection.

1.5 mL reagent size	Volume of reagent per well (µL) in 96-well plates	Number of transfected 96-well plates
INTERFERin™-HTS	**0.05 - 0.075**	**200 - 300**
Reagent L	0.1 - 0.2	75 -150
Reagent H	0.75	20
Reagent D	0.25	60

Give INTERFERin™-HTS a try

INTERFERin™-HTS shows superior advantages for siRNA high throughput screening, in particular, very low amounts of reagent are required to perform siRNA transfection. INTERFERin™-HTS is therefore extremely cost-effective.

Product	Cat N°	Reagent size
INTERFERin™-HTS	410-002	0.2 mL
	410-015	1.5 mL
	410-060	4 x 1.5 mL

1.5 mL of **INTERFERin™-HTS** transfection reagent is sufficient to transfect 200-300 plates (96-well).

For additional information, please contact our technical support at www.polyplus-transfection.com

Polyplus-transfection SA
BIOPARC, Boulevard S. Brant
67401 Illkirch, France
Phone: + 33 (0)3 90 40 61 80
Fax: + 33 (0)3 90 40 61 81

Polyplus-transfection Inc.
1251 Ave of the Americas, 34th fl.
New York, NY 10020, USA
Phone: + 1 508 315 9629

info@polyplus-transfection.com
www.polyplus-transfection.com