

- Great silencing at 1 nM siRNA and LESS for reliable results and cost saving
- Over 90% gene silencing in a wide range of cell types
- Excellent cell viability
- Extremely simple protocol, compatible with serum and antibiotics

INTERFERin™ is a **new generation** siRNA transfection reagent which provides more than 90% silencing efficiency at 1 nM siRNA in a large variety of cells.

➤ **Less is more: with INTERFERin™ you'll get more valuable data using less siRNA**

INTERFERin™ achieves a remarkable 90% silencing with only 1 nM siRNA in the presence of serum (Fig. 1). Using sub-nanomolar siRNA concentrations avoids unwanted toxic and off-target effects usually associated with reagents requiring higher siRNA concentrations^{1,2}.

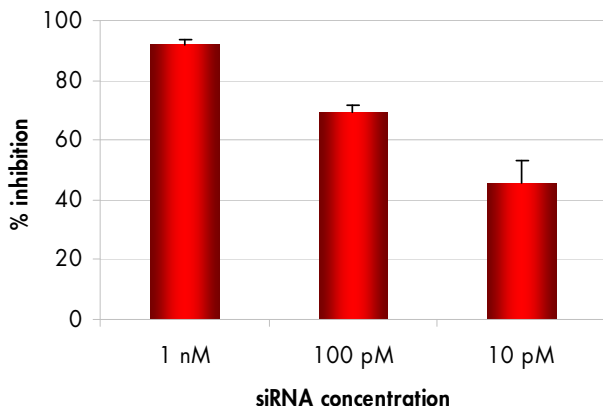


Fig. 1. INTERFERin™-mediated siRNA transfection inhibits luciferase expression in A549-GL3Luc cells. Cells were transfected in 24-well plates in the presence of serum with decreasing concentrations of Luciferase siRNA (GL3Luc) duplexes using INTERFERin™. Luciferase expression was measured after 48 h. No inhibition was observed with control siRNA duplexes (mismatch GL2Luc, data not shown).

➤ **Efficient in many cell types: Over 90% gene silencing in a wide variety of cells**

For adherent cell lines and primary cells, 1 nM siRNA concentration is sufficient to obtain over 90 % gene silencing for all genes tested. For difficult-to-transfect suspension cells, 80% silencing can still be reached with INTERFERin™ using 5 nM siRNA (Table 1).

Table 1. Successfully transfected cell lines and silencing efficiencies obtained with INTERFERin™.

Adherent cell lines (1 nM siRNA)		
A549	Luciferase	> 90%
HeLa	GAPDH / Lamin A/C	
CaSki	GAPDH / Lamin A/C	
MCF7	GAPDH / Lamin A/C	
NIH-3T3	Vimentin	
RAW 264.7	Eg5	
SiHa	GAPDH / Lamin A/C	
HepG2	GAPDH	
Primary cells (1 nM siRNA)		
Murine embryonic fibroblasts	GAPDH	> 90%
Primary human fibroblasts	GAPDH / Lamin A/C	
Primary human hepatocytes	GAPDH	
Suspension cell lines (5 nM siRNA)		
K562	GAPDH	> 80%
THP-1	GAPDH	

As an example, transfection of 1 nM siRNA duplexes targeting endogenous lamin A/C with INTERFERin™ reduces lamin gene expression to barely detectable levels (Fig. 2).

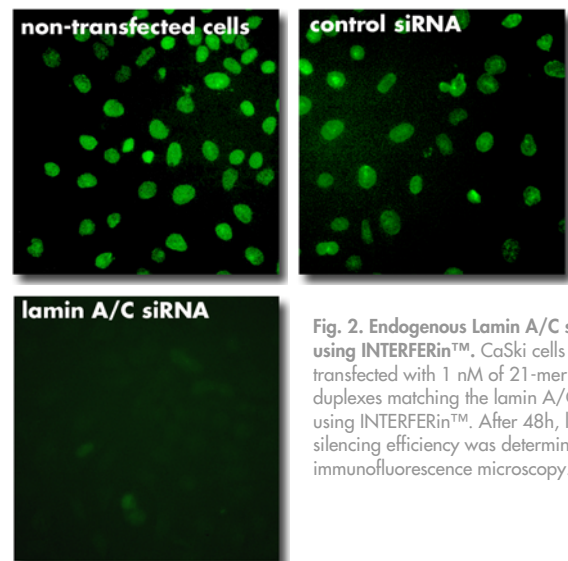


Fig. 2. Endogenous Lamin A/C silencing using INTERFERin™. CaSki cells were transfected with 1 nM of 21-mer siRNA duplexes matching the lamin A/C sequence using INTERFERin™. After 48h, lamin A/C silencing efficiency was determined by immunofluorescence microscopy.

+ Extremely simple protocol

INTERFERin™ solution is ready-to-use and the protocol is straightforward. 1 nM siRNA is recommended as starting concentration for silencing of most genes and cell types (Fig. 3).

- ▶ INTERFERin™ is compatible with serum and antibiotics.
- ▶ Forget time consuming medium changes and washes. INTERFERin™ can be left on the cells with no effect.

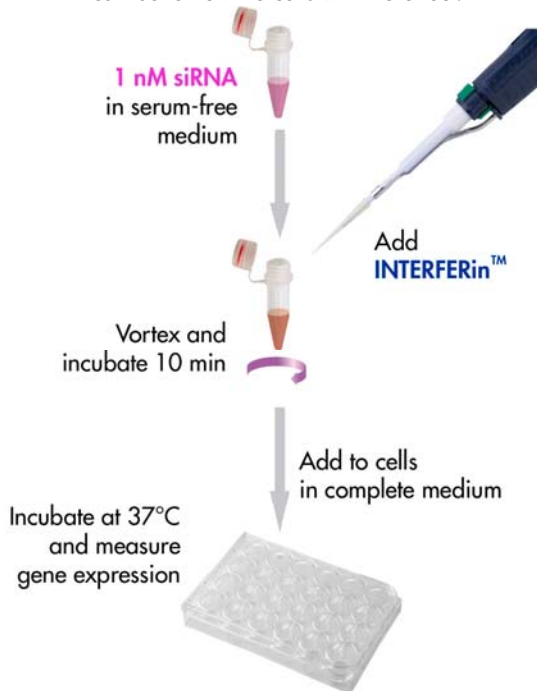


Fig. 3. INTERFERin™ standard protocol for 24-well plates.

+ Less toxicity

INTERFERin™ was compared to other well-known reagents. Cells transfected with INTERFERin™ appeared healthy under the microscope, while toxicity was evident when using reagent S (Fig. 4).

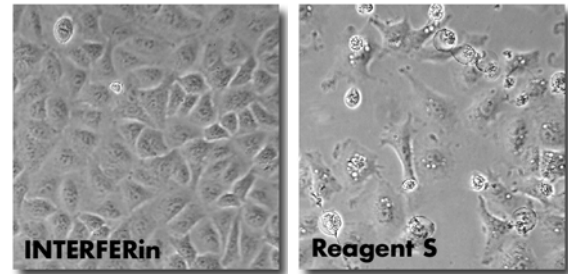


Fig. 4. Comparison of cell morphology 48 h after siRNA delivery using INTERFERin™ or competitor reagent. A549-GL3Luc cells were transfected in the presence of serum with 1 nM of GL3Luc siRNA duplexes using INTERFERin™ or competitor S according to the manufacturer's protocol.

Product	Cat N°	Reagent size
INTERFERin™	409-01	0.1 ml
	409-10	1 ml
	409-50	5 x 1 ml

1 ml of INTERFERin™ is sufficient to perform 500-1000 transfections in 24-well plates.

1. Semizarov D. *et al.* (2003) Specificity of short interfering RNA determined through gene expression signatures. *Proc. Natl Acad. Sci. USA* 100: 6347.
2. Persengiev S.P. *et al.* (2004) Nonspecific, concentration-dependent stimulation and repression of mammalian gene expression by small interfering RNAs. *RNA* 10:12.

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

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