



Cat. #: 341008-01

This spec sheet is for Reference Purposes Only.

## siMPLE™

### siRNA Delivery Agent for Hard to Transfect Cell Lines

**DESCRIPTION:** *siMPLE™ siRNA Delivery Agent for Hard to Transfect Cell Lines* is composed of a proprietary peptide which facilitates cellular uptake of various molecular cargo (siRNA, oligonucleotides, peptides, fragments of DNA), with no toxic, non-specific effects.

**APPLICATION:** As an alternative to potentially toxic lipid based transfections, *siMPLE™ siRNA Delivery Agent for Hard to Transfect Cell Lines*, is particularly useful for **primary, neuronal, differentiated and dendritic cells**. The supplied delivery agent also works with common, easy to transfect cell lines. These peptides have an activated group which will bind to thiol functionalized siRNA, oligos, peptides or other complexes with free SH groups.

**AMOUNT:** 1 mg

**STORAGE:** Store dry at -20 °C.

**SHELF LIFE:** The shelf life is 12 months when stored properly.

**QUALITY CONTROL:** Mass Spectrometry, Analytical HPLC.

#### PROTOCOL FOR THIOL FUNCTIONALIZED siRNA CONJUGATION:

1. Dissolve the thiol functionalized siRNA in culture medium.
2. Add a threefold excess of *siMPLE™ siRNA Delivery Agent for Hard to Transfect Cell Lines* to form the siRNA-peptide complex and allow to incubate at room temperature (20 – 25 °C) for 1 hour. Solubility of the *siMPLE™ siRNA Delivery Agent for Hard to Transfect Cell Lines* is 1 mg/mL.
3. The siRNA concentration used for knockdown should be optimized for each new cell line.
4. Proceed with either **forward (steps 5-7)** or **reverse transfection (steps 8-9)**.
5. For **forward transfections**, add complex to a tube with your desired amount of culture medium.
6. Remove culture medium from plate or well containing your cells.
7. Add complex to cells gently.
8. For **reverse transfections**, add complex to an empty plate or well.
9. Add desired amount of cells (in appropriate culture medium volume) to plate/well containing complex.
10. Gently swirl plate to ensure uniform distribution of the complex.
11. Monitor gene silencing after appropriate times (8-72 hours depending on experiment), changing medium when required.