



## ***TransIT*<sup>®</sup>-OligoTransfection Reagent**

**A high efficiency, low toxicity, transfection reagent optimized for oligonucleotide delivery into a wide range of cell types**

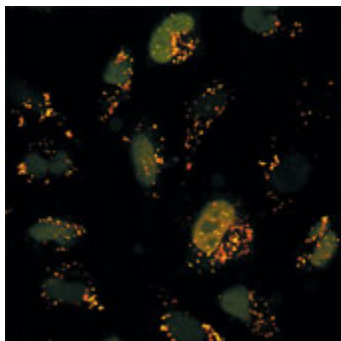
- **Unique Formulation**—Maximize transfection performance of oligonucleotides into a wide range of cells.
- **Low Cellular Toxicity**—Maintain cell density and reduce experimental biases.
- **High Efficiency Delivery**—Achieve high transfection efficiency in cells to ensure experimental success.

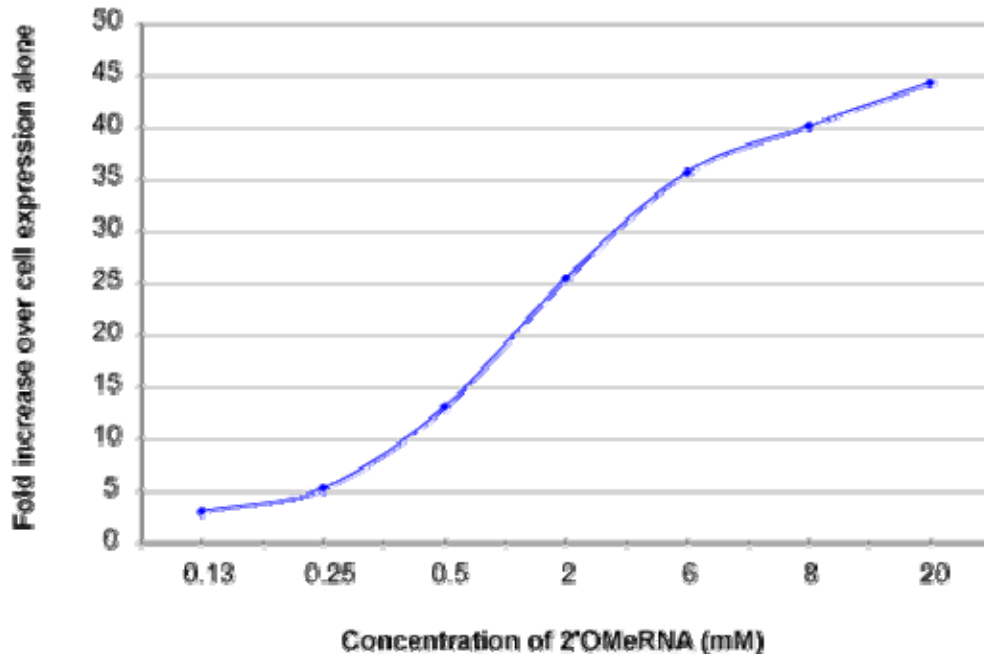
### **Oligonucleotides tested:**

phosphodiester DNA, phosphothioate DNA (sDNA), phosphothioate RNA (sRNA), 2'OMe RNA, 2'OMe RNA/sDNA Chimerics, and Morpholino/DNA duplexes.

### **Data**

**Figure 1. The *TransIT*-Oligo Reagent Achieves High Transfection Efficiency.** HeLa cells transfected using *TransIT*-Oligo Reagent and *Label IT* Cy<sup>™</sup>3 and *Label IT* Fluorescein labeled phosphothioate DNA oligos in complete media for 24 hours.





**Figure 2. The *TransIT*-Oligo Reagent Effectively Transfects a 2'OMe RNA Oligo that Blocks a Cryptic Splice Site.**

The HeLa-Luc 705 reporter cell line (Kang *et al.* 1998, **37**:6235) used in this study contains a luciferase reporter construct that has the  $\beta$ -globin 705 intron inserted into the luciferase ORF. A mutation present at position 705 of the  $\beta$ -globin intron activates two cryptic splice sites within the intron that lead to the production of a spliced luciferase mRNA that is disrupted by a small intron with an in-frame stop codon, thus preventing translation of functional luciferase protein. The transfection of a 2'OMe oligonucleotide complementary to the cryptic 705 splice site inhibits splicing at the cryptic splice sites enabling the complete removal of the  $\beta$ -globin intron and production of a mRNA with a complete, uninterrupted luciferase ORF.

The HeLa-Luc 705 cell line was transfected with increasing amounts of the anti-705 splice site 2'OMe RNA oligo at the indicated final concentrations using the *TransIT*-Oligo Transfection Reagent. The cells were harvested 24 hours post-transfection and assayed for luciferase activity. The increase in luciferase activity indicates effective delivery of the anti-705 splice site RNA oligo using the *TransIT*-Oligo Reagent.