

## Product Information

### TO1-PEG3-Biotin RNA Probe

Cat. No.	Unit Size	Concentration
C440	100 µL	250 µM

#### Storage upon receipt:

- -20°C
- Protect from light

Ex/Em: 500/530 nm

### Product Description

**TO1-PEG3-Biotin** is a unique fluorogenic RNA probe. TO1-PEG3-Biotin forms a specific tight binding with the RNA Mango Aptamer ( $K_D \approx 3\text{nM}$ ), and results in strong fluorescence enhancement ( $\sim 1000\times$ ) when bound to the Mango aptamer. This unique feature makes TO1-PEG3-Biotin as useful probe in RNA tracking and visualization. This probe is provided as 250 µM solution in DMSO.

#### Feature:

- Permeability to cell plasma and nuclear membranes.
- Low toxicity to cells.
- High molar absorptivity, with extinction coefficients  $>65,000\text{ cm}^{-1}\text{ M}^{-1}$  at visible absorption maxima.
- Extremely low intrinsic fluorescence, with quantum yields typically  $<0.01$  when unbound.
- Quantum yield increases to 0.14 when bound to Mango Aptamer.

#### Specifications:

Excitation/Emission:	500/530 nm
Shipping Condition:	Ambient
Storage Conditions:	-20°C, protect from light
Molecular Formula:	$\text{C}_{41}\text{H}_{54}\text{N}_6\text{O}_8\text{S}_2$
Molecular Weight:	823.04
Concentration:	250 µM in DMSO

Application:	Recommended Final Concentration of Probe
In Vivo Cellular Imaging	100 nM – 200 nM
In Vitro Fluorescence Assays	100 nM – 200 nM
In Vitro Transcription (IVT)	50 nM – 200 nM
FRET Assay	50 nM – 200 nM