

trFluor™ Tb-Cryptate succinimidyl ester

Catalog Number: 1442

Unit Size: 1 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	1497.53
Soluble In	DMSO

Spectral Properties

Excitation Wavelength	304 nm
Emission Wavelength	544 nm

Applications

trFluor™ Tb-Cryptate succinimidyl ester is a terbium-based labeling reagent for covalent attachment to primary amine-containing biomolecules through its succinimidyl ester reactive group. Many biological compounds present in cells, serum, or other biological fluids are naturally fluorescent, and the use of conventional prompt fluorophores can result in high background signals due to autofluorescence. The use of long-lived terbium cryptate probes combined with time-resolved detection (a delay between excitation and emission detection) helps minimize autofluorescence interference caused by biological molecules.

The reagent has good water solubility and contains a single reactive group, reducing the possibility of crosslinking during biomolecule labeling. Tb-Cryptate probes exhibit large Stokes shifts and long emission half-lives compared to traditional fluorophores such as Alexa Fluor and cyanine dyes. These probes are characterized by high stability, high emission yield, selective biomolecule labeling, and they maintain signal performance with reduced fluorescence quenching when conjugated to biological polymers such as antibodies.