

Tide Quencher™ 3HWS Succinimidyl Ester [TQ3HWS Succinimidyl Ester]

Catalog Number: 2381

Unit Size: 1 mg

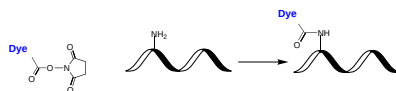
Product Details

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

Chemical Properties

Appearance	Solid red
Molecular Weight	1497.95
Soluble In	DMSO

Chemical Structure



Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

The non-fluorescent Tide Quencher™ 3HWS Succinimidyl Ester (TQ3HWS Succinimidyl Ester) is a next-generation, highly water-soluble quencher optimized for fluorescence-based applications, particularly in oligonucleotide and peptide labeling. As an advanced derivative of TQ3WS, it features significantly enhanced water solubility, enabling efficient labeling in aqueous environments with minimal organic solvent requirements. Like TQ3WS, TQ3HWS is designed to be a superior quencher for fluorophores such as TAMRA, Tide Fluor™ 3 (TF3), and Cy3, offering stronger absorption properties, higher quenching efficiency, and excellent solubility. The increased hydrophilicity of TQ3HWS acid further improves its applicability in biological and biochemical assays requiring stringent aqueous conditions. With its exceptional quenching performance, complete absence of background fluorescence, and excellent solubility, TQ3HWS provides a reliable and efficient solution for demanding fluorescence assays.

Tide Quencher™ 3HWS Succinimidyl Ester (TQ3HWS Succinimidyl Ester) selectively and efficiently reacts with primary amines, including lysine side chains in peptides and aminosilane-coated surfaces, under mildly basic conditions (pH 7–9). This reaction forms stable covalent amide bonds, making TQ3HWS Succinimidyl Ester a valuable reagent for peptide labeling. Additionally, it is utilized for the post-synthetic labeling of amino-modified oligonucleotides.