Tide Quencher™ 5HWS Succinimidyl Ester [TQ5HWS Succinimidyl Ester]

Catalog Number: 2385
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	1365.80
Soluble In	DMSO

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

The non-fluorescent Tide Quencher™ 5HWS Succinimidyl Ester (TQ5HWS 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 TQ5WS, it features significantly enhanced water solubility, enabling efficient labeling in aqueous environments with minimal organic solvent requirements. Like TQ5WS, TQ5HWS is designed to be a superior quencher for fluorophores such as Tide Fluor™ 5 (TF5), Cy5 and Cy5.5, offering stronger absorption properties, higher quenching efficiency, and excellent solubility. The increased hydrophilicity of TQ5HWS 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, TQ5HWS provides a reliable and efficient solution for demanding fluorescence assays.

Tide Quencher™ 5HWS Succinimidyl Ester (TQ5HWS 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 TQ5HWS Succinimidyl Ester a valuable reagent for peptide labeling. Additionally, it is utilized for the post-synthetic labeling of amino-modified oligonucleotides.