Tide Quencher™ 7HWS Acid [TQ7HWS Acid]

Catalog Number: 2388
Unit Size: 5 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	24 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	1104.21
Soluble In	DMSO

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

The non-fluorescent Tide Quencher™ 7HWS Acid (TQ7HWS acid) is a next-generation, highly water-soluble quencher optimized for fluorescence-based applications, particularly in oligonucleotide and peptide labeling. As an advanced derivative of TQ7WS, it features significantly enhanced water solubility, enabling efficient labeling in aqueous environments with minimal organic solvent requirements. Like TQ7WS, TQ7HWS is designed to be a superior quencher for fluorophores such as Tide Fluor™ 7 (TF7), Alexa Fluor 750, and Cy7, offering stronger absorption properties, higher quenching efficiency, and excellent solubility. The increased hydrophilicity of TQ7HWS 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, TQ7HWS provides a reliable and efficient solution for demanding fluorescence assays.

TQ7HWS acid is a non-reactive compound used as a reference standard or control in studies involving TQ7HWS-labeled conjugates Additionally, it serves as a key precursor for the synthesis of activated esters and STP derivatives, facilitating further chemical modifications. In aqueous solutions, TQ7HWS acid can be conjugated to hydrazines, hydroxylamines, or amines through water-soluble carbodiimides, such as EDAC. This enables the attachment of the quencher to amino-containing biomolecules, including amine-modified oligonucleotides and peptides.