# Tide Quencher™ 7.1WS succinimidyl ester [TQ7.1WS SE]

Catalog Number: 2119
Unit Size: 1 mg

## Product Details

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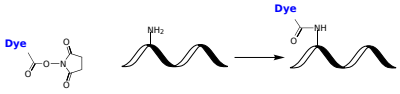
|---|---|
| Storage Conditions | Freeze (< -15 °C), Minimize light exposure |
| Expiration Date | 12 months upon receiving |

## Chemical Properties

| | |
|---|---|
| Appearance | Solid |
| Molecular Weight | 1163.47 |
| Soluble In | DMSO |
| Chemical Structure |  |



## Spectral Properties

| | |
|---|---|
| Excitation Wavelength | N/A |
| Emission Wavelength | N/A |

## Applications

Tide Quencher™ 7.1WS (TQ7.1WS) is a non-fluorescent molecule designed to efficiently quench the fluorescence of common NIR fluorophores such as Cy7, Alexa Fluor® 700, Alexa Fluor® 750, iFluor® 700, iFluor® 710, iFluor® 720 and iFluor® 750. It is an improved version of TQ7 and BHQ3. TQ7.1WS is designed to be a superior quencher with (a). much stronger absorption, and (b). much higher quenching efficiency for NIR dyes. Tide Quencher™ 7.1WS succinimidyl ester is primarily used for the post-labeling of amino-modified oligonucleotides and the N-terminal or lysine residues of peptides. It can be used in techniques such as polymerase chain reaction (PCR), real-time PCR, and DNA sequencing. In these applications, fluorescence signals are used to monitor the amplification or detection of specific DNA sequences. TQ7.1WS quenches the fluorescent signal until a specific event (like DNA strand separation or primer extension) occurs, leading to an increase in fluorescence that can be detected and quantified. Fluorescence resonance energy transfer (FRET)-based assays are widely used to detect and measure the presence of specific molecules in a sample. They involve the use of a fluorescent molecule (fluorophore) and a quencher molecule such as TQ7.1WS. The fluorophore emits light when excited by a specific wavelength of light, while the quencher molecule absorbs this emitted light, effectively "quenching" the fluorescence signal.