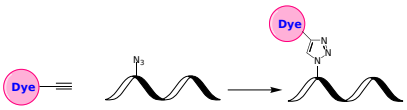
Tide Quencher™ 7.2WS alkyne [TQ7.2WS alkyne]

Catalog Number: 2129
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	1015.10
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Tide Quencher™ 7.2WS (TQ7.2WS) 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. TQ7.2WS is designed to be a superior quencher with (a). much stronger absorption, and (b). much higher quenching efficiency for NIR dyes. Tide Quencher™ 7.2WS Alkyne is an excellent building block for preparing TQ7.2WS-labeled probes from azido-modified oligonucleotides (including picolyl azide-modified oligonucleotides via the well-known click chemistry. 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. TQ7.2WS 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 TQ7.2WS. 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.

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