

Tide Quencher™ 5.1 CPG [TQ5.1 CPG] *500 Å*

Catalog Number: 2084

Unit Size: 100 mg

Product Details

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

Chemical Properties

Appearance	Solid
Molecular Weight	N/A
Soluble In	MeCN
Chemical Structure	

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Tide Quencher™ 5.1 (TQ5.1) is a non-fluorescent molecule designed to efficiently quench the fluorescence of common NIR fluorophores such as Cy5, Cy5.5, Alexa Fluor® 647, Alexa Fluor® 647, iFluor® 647 and iFluor® 680. It is an improved version of TQ5 and QSY 21 and BHQ3). TQ5.1 is designed to be a superior quencher with (a). much stronger absorption, and (b). much higher quenching efficiency. Tide Quencher™ 5.1 CPG is an excellent building block for preparing TQ5.1-labeled oligonucleotides. The oligo prepared from (TQ5.1 CPG) may be deprotected in 0.05M potassium carbonate in methanol for 4 hours at room temperature for 2 hours. Alternatively, the oligo may be deprotected in ammonium hydroxide at room temperature for 24-36 hours. 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. TQ5.1WS 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.