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DusQ 2 CPG 500

http://www.lumiprobe.com/p/bhq2-cpg

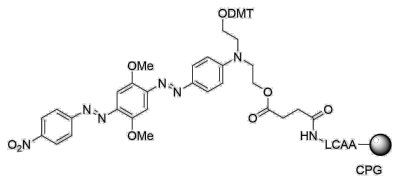
This support is intended for automated synthesis of oligonucleotides with 3'-terminal DusQ 2 quencher. Pore size of 500 Å is recommended for the synthesis of oligonucleotides of up to 50 bases in length.

DusQ 2 is a fluorescence quencher with absorption within the range of 560 to 670 nm. It is ideal for effective FRET quenching of fluorophores with emission in this range. The quencher is also used in hybridization probes with static and combined quenching. Its quenching effectiveness does not depend very much on overlapping of fluorophore and quencher spectra, thus allowing for effective quenching of the broad spectrum of fluorophores, including those with emission in the red and far-red part of the spectrum. Thus, DusQ 2 can be used with such fluorophores (including but not limited to) as Cyanine3, TAMRA, ROX, Cyanine3.5, Quasar® 570, Pulsar® 650, Cyanine5, Quasar® 670, Cyanine5.5, and Quasar® 705.

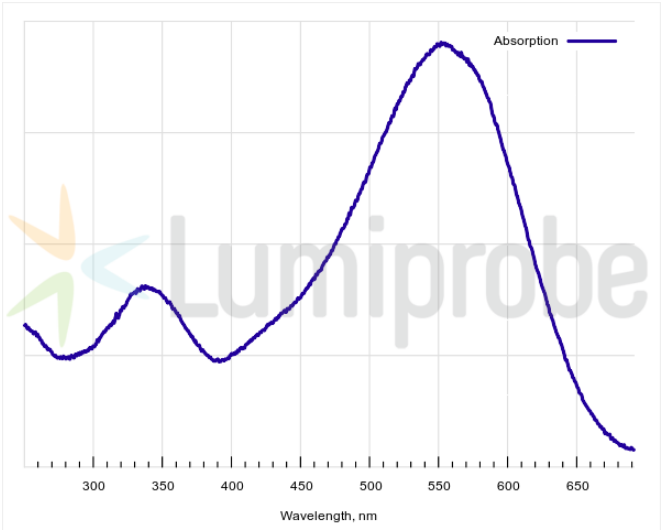
Usage

Coupling: Standard conditions identical to normal nucleobases.

Deprotection: 2 hours at room temperature using concentrated ammonia or 10 min at 65 °C using AMA mixture, concentrated aqueous ammonia/40% methylamine (1:1). Deprotection conditions depend on oligonucleotide composition and nucleobase protecting groups, as well as additional modifications, if present.



Structure of DusQ 2 CPG 500



Absorption spectrum of DusQ 2

General properties

Appearance:	dark blue beads
Quality control:	NMR ^{1}H and HPLC-MS (95%) of bound reagent, loading measurement, functional testing in oligo synthesis.
Storage conditions:	24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid prolonged exposure to light. Desiccate.

Spectral properties

Excitation/absorption maximum, nm:	552
CF_{260}:	0.31
CF_{280}:	0.26

Oligo synthesis details

Pore size, Å:	500

Typical loading, umol/g:	50−80