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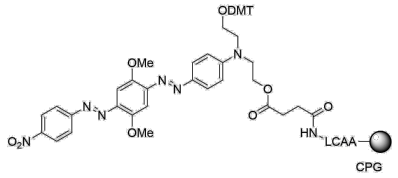
DusQ® 2 CPG 1000

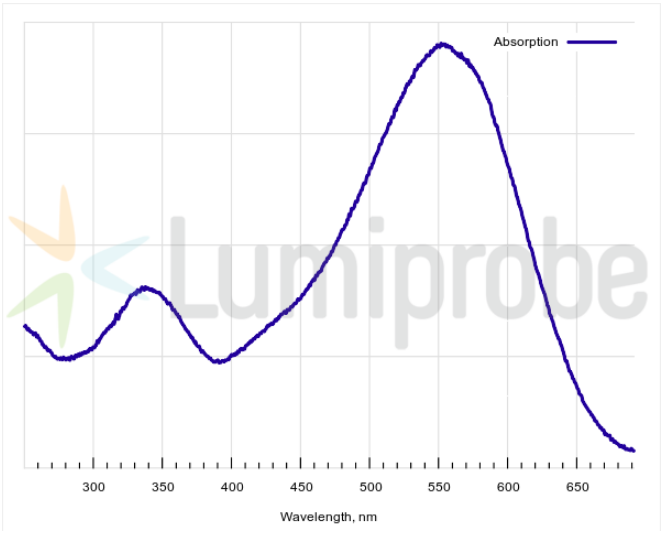
http://www.lumiprobe.com/p/bhq2-cpg-1000

This modified support is intended for the synthesis of oligonucleotides with DusQ® 2 quencher at the 3′ end. Pore size of 1000 Å is recommended for the synthesis of oligonucleotides of up to 100 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 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, Cyanine5, Cyanine5.5.



Structure of DusQ 2 CPG 1000



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:	Storage: 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.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.

Spectral properties

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

Oligo synthesis details

Pore size, Å:	1000
Typical loading, umol/g:	30−50
Coupling conditions:	standard coupling, identical to normal nucleobases

Deprotection conditions:	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.