

## DusQ 1 CPG 500

<http://www.lumiprobe.com/p/dusq-1-cpg>

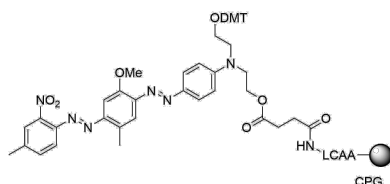
This modified support with a pore size of 500 Å is intended for the synthesis of oligonucleotides of up to 50 bases in length modified with non-fluorescent DusQ 1 quencher at the 3' end.

DusQ 1 dark quencher exhibits the strongest absorption within the range of 480 to 580 nm; its absorption maximum is at 534 nm. It can be used for combined quenching (a combination of static and dynamic quenching) of many fluorophores, including Biosearch Blue™, Marina Blue™, Edans, Bothell Blue, FAM™, JOE™, VIC™, R6G, HEX™, TET™, CAL Fluor™ Gold 540, and Yakima Yellow™. It can be used for the synthesis of hybridization probes such as TaqMan, Molecular Beacon, Scorpion.

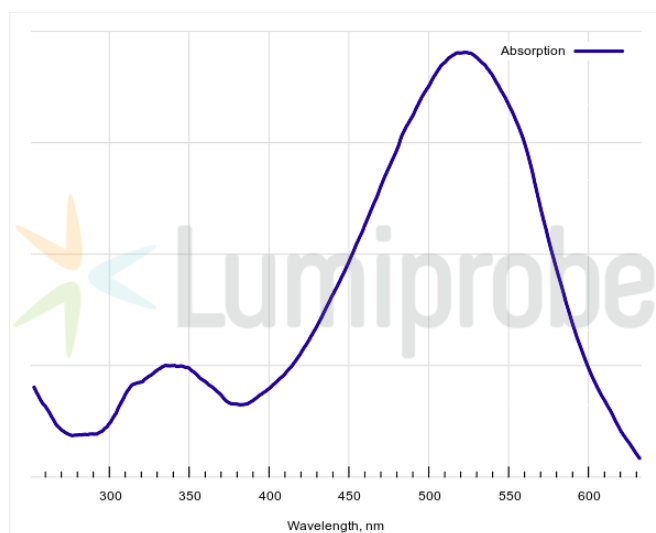
## Usage

**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 1 CPG 500**



**Absorption spectrum of DusQ 1**

### General properties

|                     |   |
|---------------------|---|
| Appearance:         | purple beads  |
| Quality control:    | NMR <sup>1</sup> H and HPLC-MS (95%) of bound reagent, loading measurement, functional testing in oligo synthesis.  |
| Storage conditions: | Storage: 24 months after receipt 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:         | 522   |
| ε, L·mol <sup>-1</sup> ·cm <sup>-1</sup> : | 27300 |
| CF <sub>260</sub> :                        | 0.17  |
| CF <sub>280</sub> :                        | 0.10  |

### Oligo synthesis details

|               |     |
|---------------|-----|
| Pore size, Å: | 500 |
|---------------|-----|

Typical loading,  $\mu\text{mol/g}$ :

70–80