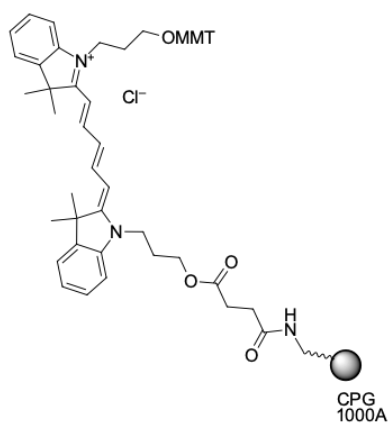


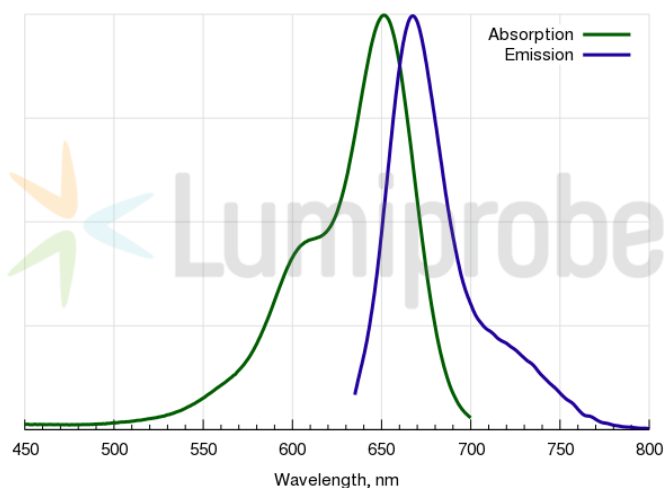
Cyanine5 CPG 1000

<http://www.lumiprobe.com/p/cy5-cpg-1000>

Cyanine5 CPG 1000 Å is a controlled pore glass support with the fluorescent dye Cyanine5 pre-attached via a linker. Designed for automated solid-phase oligonucleotide synthesis, this matrix enables direct 3'-end fluorescent labeling during chain assembly, eliminating the need for post-synthetic modification. The 1000 Å pore size is ideally suited for the synthesis of long sequence — up to 100 nucleotides. Cyanine5 is a bright fluorophore operating in the red region of the spectrum, with absorption and emission maxima at 646 nm and 662 nm, respectively, making it a widely adopted label in molecular diagnostics. Covalent immobilization of the dye through the linker allows direct 3'-end labeling during solid-phase synthesis; subsequent steps of detritylation, coupling, and oxidation, as well as oligonucleotide cleavage and deprotection, are performed using standard protocols with adjustments recommended for modified CPG supports. The large pore architecture of the CPG matrix enhances reagent diffusion and improves overall yield and purity, even for extended sequences. Oligonucleotides labeled using this reagent are suitable for a range of applications, including real-time PCR, FISH, FRET, and surface-enhanced Raman spectroscopy.



Structure of Cyanine5 CPG 1000



Cyanine5 absorbance and emission spectra

General properties

Appearance:	blue beads
Quality control:	NMR ¹ H and loading measurement, functional testing in oligo synthesis.
Storage conditions:	24 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. 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:	646
Emission maximum, nm:	662

Oligo synthesis details

Pore size, Å:	1000
Typical loading, umol/g:	25-40
Coupling conditions:	standard coupling, identical to normal nucleobases
Deprotection conditions:	ammonia, 2 h at room temperature. DO NOT use AMA mixture!