Lumiprobe Corporation
201 International Circle, Suite 135
Hunt Valley, Maryland 21030
USA
Phone: +1 888 973 6353
Fax: +1 888 973 6354
Email: order@lumiprobe.com

DusQ® 2 dT phosphoramidite

http://www.lumiprobe.com/p/bhq2-du-phosphoramidite

DusQ® 2 dT phosphoramidite is a modified oligo synthesis reagent bearing completely non-fluorescent quencher nucleotide base typically used to internally label DNA oligonucleotide probe. DusQ 2 has large extinction coefficient, efficiently quench fluorescence for dyes emitting in the far red region, such as Cyanine5.

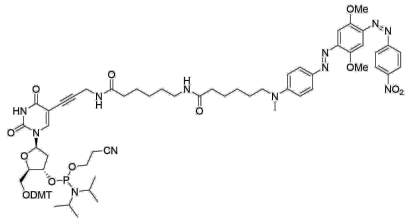
DusQ 2 is typically used to construct qPCR probes with a quencher moiety. Reagent contains a DMT protection of the hydroxymethyl group, which allows oligonucleotide purification on cartridges. DusQ 2 has a absorption spectrum in of red and near-infrared range and can be paired with reporter dyes that emit in the range 560–670 nm, e.g. TAMRA, ROX, Cyanine3, and Cyanine5.

Usage

Coupling: 6 minutes coupling time recommended.

Deprotection: for 2 h at RT using ammonium hydroxide, or 10 min at 65 °C with AMA (solution of 30% ammonium hydroxide/40% aqueous methylamine 1:1 v/v).

Deprotection time depends on oligonucleotide composition and nucleobase protecting groups, and additional modifications.



Structure of DusQ2 dT phosphoramidite

General properties	
Appearance:	black powder
Molecular weight:	1413.55
Molecular formula:	$C_{75}H_{89}N_{12}O_{14}P$
Quality control:	NMR ^{1}H, ^{31}P,HPLC-MS (95%)
Storage conditions:	12 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

Oligo synthesis details	
Coupling conditions:	6 min coupling time
Cleavage conditions:	ammonia, 2 h at room temperature
Deprotection conditions:	identical to protected nucleobases