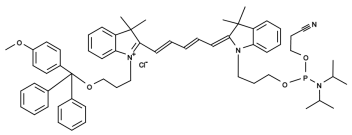
Cy5 phosphoramidite

Catalog number: 6071
Unit size: 100 umoles

Product Details

Storage Conditions	Freeze (<-15 °C), Minimize light exposure
Expiration Date	6 months upon receiving

Chemical Properties

Appearance	Blue solid
Molecular Weight	979.66
Soluble In	MeCN
Chemical Structure	

Spectral Properties

Excitation Wavelength	651 nm
Emission Wavelength	670 nm

Applications

Two cyanine derivatives, Cy3 and Cy5 phosphoramidites, are the most popular fluorescent labeling reagents for preparing fluorescence-labeled oligonucleotides. Cyanine dyes are normally added once at the 5'-terminus and the MMT group should be removed on the synthesizer. The absorbance of the MMT cation (yellow) is noticeably different from the DMT cation (orange), thus the trityl absorbance can be used to monitor oligo coupling. Cyanine dye phosphoramidites have also been used successfully adjacent to the 3'-terminus. Deprotection of oligos containing cyanine dyes may be carried out with ammonium hydroxide at room temperature, regardless of the base protecting groups on the monomers used. If ammonium hydroxide is used at elevated temperature, Cy3 and Cy3.5 are more stable than Cy 5 and Cy 5.5. However, it is always prudent to use monomers with base labile protecting groups to limit the exposure time to 2 hours or less at 65°C during deprotection.