

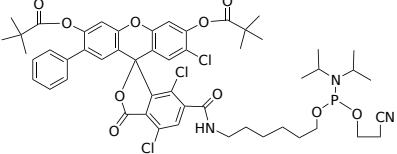
6-VIC phosphoramidite

Catalog Number: 6086, 6087, 6088
Unit Size: 50 umoles, 100 umoles, 1 g

Product Details

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

Chemical Properties

Appearance	Solid off-white
Molecular Weight	1023.38
Soluble In	MeCN
Chemical Structure	 The chemical structure shows a complex xanthene-based molecule. It features a central xanthene core with two chlorine atoms at the 6 and 9 positions. Attached to the 6-position is a 4-phenyl-1,3-dioxolan-2-one group. Attached to the 9-position is a 4-(2-chloro-4-methyl-5-oxo-1,3-dioxolan-2-yl)-1,3-dioxolan-2-one group. A long, branched alkyl chain is attached to the 3-position of the outermost dioxolan ring. This chain ends in a phosphoramidite group, specifically a triisopropylsilyl (TIPS) phosphoramidite.

Spectral Properties

Excitation Wavelength	526 nm
Emission Wavelength	543 nm

Applications

6-VIC phosphoramidite is an asymmetrical xanthene dye widely used to prepare fluorescence-labeled oligonucleotides and design qPCR probes, such as TaqMan, Molecular Beacon, and Scorpion. Its spectral characteristics are similar to HEX and JOE, emitting fluorescence in the green-yellow range. 6-VIC phosphoramidite can efficiently label oligonucleotides at their 5'-end using standard or automated synthesis protocols. Protecting groups on the 6-VIC moiety are removed under standard conditions of cleavage and deprotection with concentrated ammonia.