

FAM-xtra™ PhosphoramiditeCatalog number: 6037, 6038, 6039
Unit size: 50 umoles, 100 umoles, 10x100 umoles**Product Details**

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

Chemical Properties

Appearance	Solid
Molecular Weight	879.94
Soluble In	MeCN

Applications

There are several ways of labeling an oligonucleotide with fluorescein. 6-FAM phosphoramidite might be the most popular fluorescent building block that is widely used to efficiently label an oligonucleotide at the 5'-end with the fluorescein fluorophore. Standard cleavage and deprotection with ammonium hydroxide are used to liberate the fluorescein-labeled oligos. Although 6-FAM has been ubiquitously used for developing a variety of qPCR probes, its fluorescence suffers two serious limitations: a). highly pH dependent; and b). photo-bleach rapidly. FAM-xtra™ Phosphoramidite has been developed to address these two limitations while the well-beloved operational convenience of 6-FAM phosphoramidite is intactly maintained. FAM-xtra Phosphoramidite can be used exactly as is used for 6-FAM phosphoramidite under the same operation conditions without any changes needed. The oligos made from FAM-xtra Phosphoramidite have quite a few great benefits: a). FAM-xtra-labeled oligos have the identical spectra to those of 6-FAM labeled ones; b). FAM-xtra-labeled oligos are much brighter than the corresponding FAM-labeled ones; c). FAM-xtra-labeled oligos have much higher photostability than the corresponding FAM-labeled ones; and d). The fluorescence of FAM-xtra-labeled oligos is much less pH sensitive than that of the corresponding FAM-labeled ones. Under the physiological conditions, the fluorescence of FAM-xtra-labeled oligos is essentially pH-independent, making the FAM-xtra-labeled oligos much more robust qPCR probes.