Product Specifications

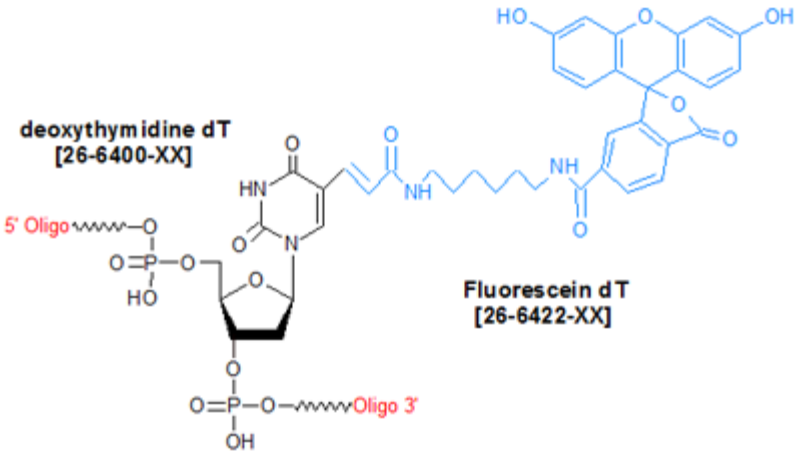
Custom Oligo Synthesis, antisense oligos, RNA oligos, chimeric oligos, Fluorescent dyes, Affinity Ligands, Spacers & Linkers, Duplex Stabilizers, Minor bases, labeled oligos, Molecular Beacons, siRNA, phosphonates Locked Nucleic Acids (LNA); 2′-5′ linked Oligos

Oligo Modifications

For research use only. Not for use in diagnostic procedures for clinical purposes.

Fam dT

Category	Fluorescent Dyes
Modification Code	Fam-dT
Reference Catalog Number	26-6422
5 Prime	Y
3 Prime	Y
Internal	Y
Molecular Weight(mw)	815.71



Fluorescein-dT is a deoxythymidine nucleoside derivitized with 6-FAM (6-carboxyfluorescein) through a spacer arm. 6-FAM is the most commonly used fluorescent dye for labeling oligonucleotides; Fluorescein-dT is used to internally label an oligonucleotide at a dT position. Fluorescein-dT has an absorbance maximum of 492 nm and an emission maximum of 517 nm. Fluorescein-dT can be used to internally label a Fluorescence Resonance Energy Transfer (FRET) DNA oligonucleotide probe with a fluorophore. Such a labeling strategy is pertinent in cases where the distance between the quencher and fluorophore needs optimization for efficient quenching. For such probes, fluorescein is most commonly paired with the dark quencher BHQ-1, as the two have excellent spectral overlap.

Fluorescein-dT also can be used to label DNA oligos for use as hybridization probes in a variety of in vivo and in vitro research or diagnostic applications, as well as for structure-function studies of DNA, RNA, and protein-oligonucleotide complexes. Oligos internally labeled with fluorescein-dT also can be used as PCR and DNA sequencing primers to generate fluorescently-labeled PCR, sequencing or genetic analysis (AFLP or microsatellite) products.