

6-TAMRA CPG *1000 Å*

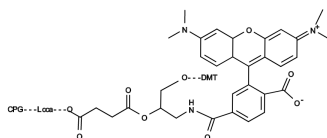
 Catalog number: 6051
 Unit size: 1 g

Product Details

Storage Conditions	Freeze (<15 °C), Minimize light exposure
Expiration Date	24 months upon receiving

Chemical Properties

Appearance	Purple solid
Molecular Weight	N/A
Soluble In	MeCN
Chemical Structure	


Spectral Properties

Excitation Wavelength	552 nm
Emission Wavelength	578 nm

Applications

The light-absorbing properties of TAMRA, and spectral overlap with several commonly used fluorophores - including FAM, HEX, TET and JOE, make it useful as a FRET acceptor for the dual labeled FRET probes such as Molecular Beacons. TAMRA has been used extensively for real-time PCR and other molecular diagnostic applications. Oligonucleotides can be labeled with TAMRA using two distinct methodologies. Under standard deprotection conditions, TAMRA is not sufficiently stable; the molecule degrades in the presence of ammonium hydroxide. If standard deprotection is required, the oligonucleotide is normally synthesized with an amino group at either the 3'-, or 5'-end and post-labeled with TAMRA succinimidyl ester. Oligonucleotides synthesized using UltraMILD monomers can also be labeled directly with TAMRA, either internally by substituting any suitable dT residue with TAMRA-dT-CE phosphoramidite, or at the 3'-end using 3'-TAMRA CPG support. Subsequent deprotection of the oligo using potassium carbonate in methanol adequately removes the base protecting groups, leaving the TAMRA intact. Alternatively the deprotection of 1:1:2 t-butylamine/methanol/water allows the use of regular monomers.