

TAMRA phosphoramidite, 5-isomer

<http://hk.lumiprobe.com/p/tamra-phosphoramidite-5>

This phosphoramidite is used for synthesis of oligonucleotides 5'-labeled with TAMRA.

TAMRA (carboxytetramethylrhodamine) is a xanthene dye from the rhodamine family with emission in the orange spectrum range (maximum at 563 nm). This fluorophore is traditionally used as a FRET-acceptor (and a quencher) in a pair with fluorescein (FAM) due to significant overlapping of their spectra. Thus, this phosphoramidite is convenient for the synthesis of dual-labeled probes TaqMan, which contain 5'-terminal TAMRA and FAM in the middle of the sequence or at the 3'-end (using [Fluorescein dT Phosphoramidite](#) and [FAM CPG](#), respectively).

TAMRA 5'-labeled oligonucleotides are commonly used for quantitative PCR and fragment analysis (for example, for microsatellite marker analysis) because the equipment available has a detection channel for TAMRA frequently.

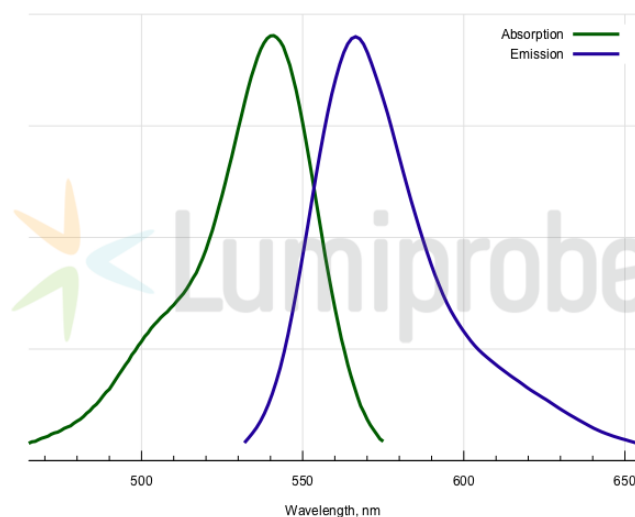
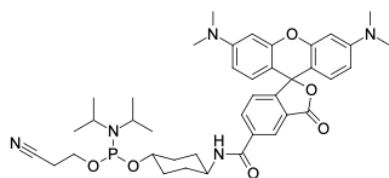
The TAMRA dye is not stable in the presence of ammonium and sterically non-hindered primary amines, so it is strongly recommended to follow specified conditions for labeled oligonucleotide deprotection.

Usage

Coupling: 7.5 min.

Deprotection: tert-butylamine : methanol : water 1 : 1 : 3 (v/v/v) («TAMRA cocktail») for 6 hours at 60 °C, then cool down to room temperature.

Due to complete and irreversible degradation of the TAMRA dye, do NOT use aqueous ammonium and AMA for deprotecting a modified oligonucleotide from the solid-phase support.



外观:

质谱 M+ 增量: 589.60

分子量: 727.83

分子式: C₄₀H₅₀N₅O₆P

溶解度:

质量控制:

储存条件:

激发/吸收极大值, 纳米: 541

ε, 摩尔吸光系数, cm⁻¹: 84000

发射极大值, 纳米: 567

CF₂₆₀: 0.32

CF₂₈₀: 0.19

稀释剂: