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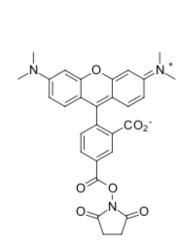
TAMRA NHS ester, 5-isomer

http://www.lumiprobe.com/p/tamra-nhs-ester-5

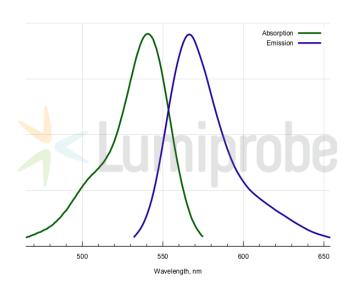
TAMRA (tetramethylrhodamine) is a xanthene dye of rhodamine series. This fluorophore has been used for quite a long time for the preparation of dual-labeled qPCR TagMan oligonucleotide probes containing TAMRA and fluorescein (FAM).

Like many other xanthene fluorophores, TAMRA is available as two isomers (5- and 6-isomer) with nearly identical optical properties. This product is an isomerically pure 5-TAMRA.

TAMRA NHS is an amine-reactive reagent. It can be used to label proteins, peptides, and modified oligonucleotides containing amine groups.



Structure of 5-TAMRA NHS ester



Absorption and emission spectra of 5-TAMRA

General properties

Appearance: dark colored solid

Molecular weight: 527.53 CAS number: 321862-17-3 Molecular formula: $C_{29}H_{25}N_3O_7$

IUPAC name: (2,5-dioxopyrrolidin-1-yl) 3',6'-bis(dimethylamino)-3-oxospiro[2-benzofuran-1,9'-xanthene]-5-

carboxylate

Solubility: good in DMF, DMSO, low in water

Quality control: NMR ¹H, HPLC-MS (95%)

Storage conditions: Storage: 12 months after receipt at -20°C in the dark. Transportation: at room temperature

for up to 3 weeks. Avoid prolonged exposure to light. Desiccate.

Spectral properties

Excitation/absorption 541

maximum, nm:

 ϵ , L·mol⁻¹·cm⁻¹: 84000 Emission maximum, nm: 567

Fluorescence quantum yield: 0.1 CF₂₆₀: 0.32

CF₂₈₀: 0.19