

TAMRA carboxylic acid, 5-isomer

http://www.lumiprobe.com/p/tamra-carboxylic-acid-5

Tetramethylrhodamine (TAMRA) is a xanthene dye with orange emission. The dye is a FRET acceptor for FAM and is sometimes used as a quencher of FAM. Like other xanthenes, TAMRA exists as two isomers (5- and 6-) with similar spectral properties. This compound is a pure 5-isomer of TAMRA.

TAMRA carboxylic acid is a non-reactive form of TAMRA dye that can be used as a reference standard in experiments involving TAMRA dye conjugates. Besides, the carboxylic group can react with hydrazines, hydroxylamines, and amines using carbodiimides such as EDAC.



Structure of TAMRA carboxylic acid, 5-isomer

| General properties | |
|---------------------|---|
| Appearance: | green powder |
| Molecular weight: | 430.46 |
| Molecular formula: | $C_{25}H_{22}N_2O_5$ |
| Quality control: | NMR ¹ H and HPLC-MS (95+%) |
| Storage conditions: | 24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate. Avoid prolonged exposure to light. |

Spectral properties

| Excitation/absorption maximum, nm: | 541 |
|--|-------|
| ε, L·mol ⁻¹ ·cm ⁻¹ : | 84000 |
| Emission maximum, nm: | 567 |
| Fluorescence quantum yield: | 0.1 |
| CF ₂₆₀ : | 0.32 |
| CF ₂₈₀ : | 0.19 |