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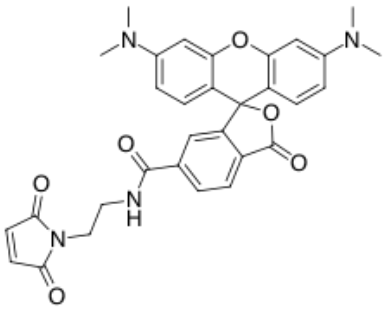
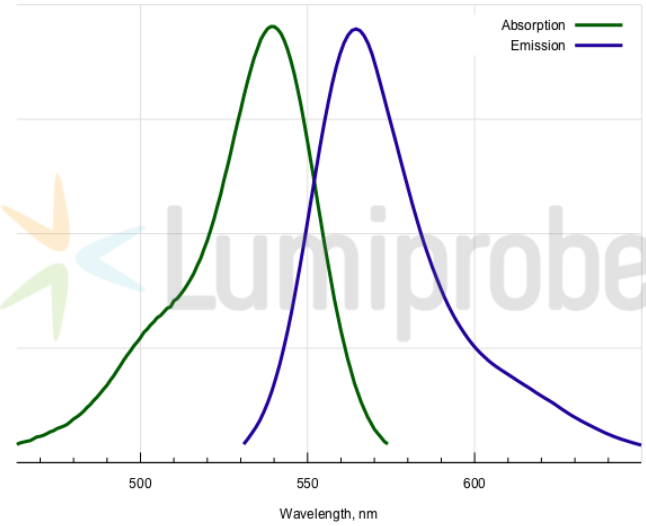
TAMRA maleimide, 6-isomer

http://www.lumiprobe.com/p/tamra-maleimide-6

TAMRA (also known as TMR or tetramethylrhodamine) is a xanthene dye that has been used as a fluorescent label for decades. Xanthene dyes are available as two isomers (called 5- and 6-isomers) that have almost identical fluorescent properties but need to be separated to avoid doubling and smearing of labeled product peaks or bands during chromatography or electrophoresis. This is a pure 6-isomer of TAMRA maleimide, used to label proteins and peptides via thiol (SH) groups.



Structure of 6-TAMRA maleimide



Absorption and emission spectra of 6-TAMRA

General properties

Appearance:	dark colored solid
Mass spec M+ increment:	551.2
Molecular weight:	552.58
Molecular formula:	$C_{31}H_{28}N_4O_6$
Solubility:	good in DMSO, DMF
Quality control:	NMR ^1H, HPLC-MS (95%)
Storage conditions:	Storage: 12 months after receival 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 maximum, nm:	541
ε, $L \cdot mol^{-1} \cdot cm^{-1}$:	84000
Emission maximum, nm:	567
Fluorescence quantum yield:	0.1
CF_{260}:	0.32
CF_{280}:	0.19