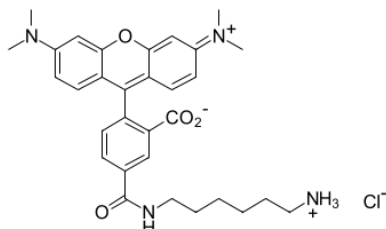


## TAMRA amine, 5-isomer

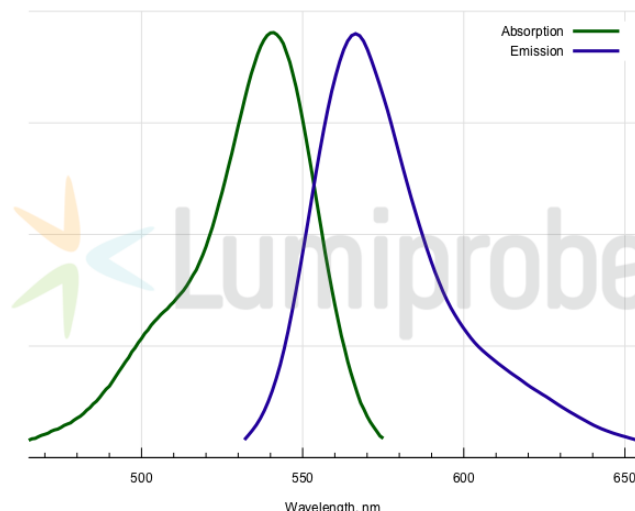
<http://www.lumiprobe.com/p/tamra-amine-5>

TAMRA (tetramethylrhodamine) is a well known fluorophore that has a long history of use in biomolecule labeling. TAMRA can serve as a FRET acceptor for FAM (fluorescein).

TAMRA amine is a derivative having a primary amine group that can be conjugated with various electrophiles like activated esters, epoxides, etc., used in reductive amination reactions, and in enzymatic transamination.



**Structure of 5-TAMRA amine**



**Absorption and emission spectra of 5-TAMRA**

### General properties

Appearance:	dark red solid
Molecular weight:	565.1
CAS number:	2158336-47-9 (inner salt)
Molecular formula:	$C_{31}H_{37}N_4ClO_4$
Solubility:	good in DMF, DMSO, alcohols
Quality control:	NMR $^1H$ , HPLC-MS (95%)
Storage conditions:	Storage: 24 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 maximum, nm:	541
$\epsilon$ , $L \cdot mol^{-1} \cdot cm^{-1}$ :	84000
Emission maximum, nm:	567
Fluorescence quantum yield:	0.1
$CF_{260}$ :	0.32
$CF_{280}$ :	0.19