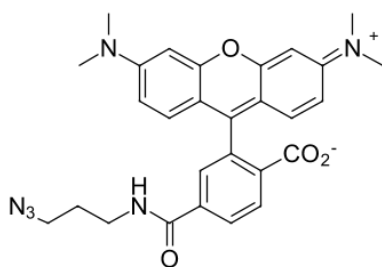


TAMRA azide, 6-isomer

<http://www.lumiprobe.com/p/tamra-azide-6>

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 very similar spectral properties. This is an azide derivative of the 6-isomer of TAMRA. The azide can be conjugated with terminal alkynes using copper-catalyzed click chemistry (CuAAC) or with cycloalkynes with copper-free strain-promoted alkyne azide cycloaddition (SPAAC) reaction.



Structure of 6-TAMRA azide

General properties

Appearance:	violet solid / solution
Mass spec M+ increment:	512.2
Molecular weight:	512.56
CAS number:	1192590-89-8
Molecular formula:	C ₂₈ H ₂₈ N ₆ O ₄
Solubility:	Good in DMF, DMSO, alcohols, low solubility in water
Quality control:	NMR ¹ H, 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
ε, L·mol ⁻¹ ·cm ⁻¹ :	84000
Emission maximum, nm:	567
Fluorescence quantum yield:	0.1
CF ₂₆₀ :	0.32
CF ₂₈₀ :	0.19