

Product Data Sheet

Date of Issue: 7 Oct 2021

1. Product Information

- Product Name : TAMRA PEG4-Alkyne
- Catalog Number : KWG1025
- Packing Unit : 25 mg
- Appearance : Red Solid
- Storage Conditions : Protect from Light at -20 °C

2. Additional Information

- Fluorophore Label : TAMRA
- Reactive Group : PEG4-Alkyne
- Reactive Toward : Azide
- Molecular Formula : $C_{36}H_{44}N_3O_8$
- Molecular Weight : 645.74 g/mol
- Excitation $_{Max}$: 549 ± 3 nm
- Emission $_{Max}$: 573 ± 4 nm
- Extinction Coefficient : $\geq 83,000$ /cm·M

3. Description

TAMRA PEG4-Alkyne is a copper (I)-catalyzed azide-alkyne cycloaddition (CuAAC) reagent of bright yellow dye that used to generate a stable fluorescence signal in bioimaging. The maxima of Ex/Em values are at 549/573 nm, similar to that of DyLight 549, ATTO 550 and Cy 3. TAMRA might be excited using 543 or 546 nm laser line and displays good optical property. The alkyne reactive group is connected to the dye through a tetraethylene glycol spacer. TAMRA PEG4-alkyne couples with an azide to form 1,4-disubstituted 1,2,3-triazole inside of living systems without interfering native biochemical processes. Prior to perform CuAAC, the azide functionality should be introduced onto counterpart biomolecule by means of chemical or genetic modification. We offer TAMRA PEG4-alkyne as a click chemistry reagent dye for cellular imaging and nucleotide functionalization.