

Product Data Sheet

Date of Issue: 7 Oct 2021

1. Product Information

- Product Name : Flamma® 552 PEG4-Alkyne
- Catalog Number : PWG1122
- Packing Unit : 1mg / 5mg / 25 mg
- Appearance : Red Solid
- Storage Conditions : Protect from Light at -20 °C

2. Additional Information

- Fluorophore Label : Flamma® 552
- Reactive Group : PEG4-Alkyne
- Reactive Toward : Azide
- Molecular Formula : $C_{45}H_{63}N_3O_{11}S_2$
- Molecular Weight : 886.13 g/mol
- Excitation $_{Max}$: 550 ± 3 nm
- Emission $_{Max}$: 564 ± 4 nm
- Extinction Coefficient : $\geq 136,000$ /cm·M

3. Description

Flamma® Fluors 552 PEG4-alkyne is a copper (I)-catalyzed azide-alkyne cycloaddition (CuAAC) reagent of bright yellow dye induced from cyanine structure and used to generate a stable fluorescence signal in bioimaging. The alkyne reactive group is connected to the dye through a tetraethylene glycol spacer. The maxima of Ex/Em values are at 550/564 nm, similar to that of Alexa 555, DyLight 549, ATTO 550 and Cy3. Flamma 552 might be excited using 532, 543, 546 or 555 nm laser lines and displays excellent optical property. Flamma 552 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 Flamma Fluors 552 PEG4-alkyne as a click chemistry reagent dye for cellular imaging and nucleotide functionalization.