

# Product Data Sheet

Date of Issue: 7 Oct 2021

## 1. Product Information

- Product Name : Flamma® 648 PEG4-Alkyne
- Catalog Number : PWG1215
- Packing Unit : 1mg / 5mg / 25 mg
- Appearance : Blue Solid
- Storage Conditions : Protect from Light at -20 °C

## 2. Additional Information

- Fluorophore Label : Flamma® 648
- Reactive Group : PEG4-Alkyne
- Reactive Toward : Azide
- Molecular Formula :  $C_{46}H_{63}N_3O_{11}S_2$
- Molecular Weight : 898.14 g/mol
- Excitation<sub>Max</sub> :  $648 \pm 3$  nm
- Emission<sub>Max</sub> :  $663 \pm 4$  nm
- Extinction Coefficient :  $\geq 227,000$  /cm·M

## 3. Description

Flamma® Fluors 648 PEG4-alkyne is a copper (I)-catalyzed azide-alkyne cycloaddition (CuAAC) reagent of far-red 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 648/663 nm, similar to that of Alexa 647, Cy5 and DyLight 650. Flamma 648 might be excited using 593 or 633 nm laser lines and displays excellent optical property. Flamma 648 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 648 PEG4-alkyne as a click chemistry reagent dye for cellular imaging and nucleotide functionalization.