

# Product Data Sheet

Date of Issue: 7 Oct 2021

## 1. Product Information

- Product Name : Flamma® 749 Alkyne
- Catalog Number : PWK1301
- Packing Unit : 1mg / 5mg / 25 mg
- Appearance : Green Solid
- Storage Conditions : Protect from Light at -20 °C

## 2. Additional Information

- Fluorophore Label : Flamma® 749
- Reactive Group : Alkyne
- Reactive Toward : Azide
- Molecular Formula :  $C_{40}H_{49}N_3O_7S_2$
- Molecular Weight : 747.96 g/mol
- Excitation<sub>Max</sub> :  $749 \pm 3$  nm
- Emission<sub>Max</sub> :  $774 \pm 4$  nm
- Extinction Coefficient :  $\geq 170,000$  /cm·M

## 3. Description

Flamma® Fluors 749 Alkyne is a copper (I)-catalyzed azide-alkyne cycloaddition (CuAAC) reagent of near infrared (NIR) fluorescent dye induced from cyanine structure and used to generate a stable fluorescence signal in bioimaging. The maxima of Ex/Em values are at 749/774 nm, similar to that of Alexa 750, Cy7, IRDye 750 and DyLight 755. Flamma 749 might be excited using 750 nm laser line or dye-pumped laser excitation and the emission occurs at biological tissue permeable NIR region. Flamma 749 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 749 alkyne as a click chemistry reagent dye for cellular imaging and nucleotide functionalization.