

# Product Data Sheet

Date of Issue: 7 Oct 2021

## 1. Product Information

- Product Name : ICG PEG4 Alkyne
- Catalog Number : POG1616
- Packing Unit : 1 mg / 5 mg / 25 mg
- Appearance : Green Solid
- Storage Conditions : Protect from Light at -20 °C

## 2. Additional Information

- Fluorophore Label : ICG
- Reactive Group : PEG4 Alkyne
- Reactive Toward : Azide
- Molecular Formula :  $C_{56}H_{69}N_3O_8S$
- Molecular Weight : 944.23 g/mol
- Excitation  $_{Max}$  :  $785 \pm 3$  nm
- Emission  $_{Max}$  :  $812 \pm 4$  nm
- Extinction Coefficient :  $\geq 218,000$  /cm·M

## 3. Description

ICG PEG4-Alkyne is a copper (I)-catalyzed azide-alkyne cycloaddition (CuAAC) reagent of near infrared (NIR) fluorescent dye and used to generate a stable fluorescence signal in bioimaging. The alkyne reactive group is connected to ICG through a tetraethylene linker. NIR fluorescence allows to observe the deep image from the surface of skin and being utilized in a wide range of research fields. The maxima of Ex/Em values are at 785/821 nm. ICG might be excited using 750-800 nm laser line or LED and displays excellent optical property. ICG 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 ICG PEG4-alkyne as a click chemistry reagent dye for cellular imaging and nucleotide functionalization.