

# Product Data Sheet

Date of Issue: 7 Oct 2021

## 1. Product Information

- Product Name : Flamma® 749 Hydrazide
- 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 : Hydrazide
- Reactive Toward : Aldehyde, Ketone
- Molecular Formula :  $C_{37}H_{48}N_4O_7S_2$
- Molecular Weight : 724.93 g/mol
- Excitation<sub>Max</sub> :  $749 \pm 3$  nm
- Emission<sub>Max</sub> :  $774 \pm 4$  nm
- Extinction Coefficient :  $\geq 168,000$  /cm·M

## 3. Description

Flamma® Fluors 749 Hydrazide is a reactive form 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. Hydrazides can label aldehyde and ketone through reductive amination reaction to form an imine linkage. The main labeling target for hydrazides are free reducing sugars on biomolecules, and prior to conjugation, primary and secondary alcohols on polysaccharide and glycoprotein are usually oxidized to aldehyde and ketone. We offer Flamma Fluors 749 hydrazide for labeling of polysaccharide, glycoprotein and other biomolecules bearing aldehyde or ketone.