

# Product Data Sheet

Date of Issue: 7 Oct 2021

## 1. Product Information

- Product Name : Flamma® 749 Carboxylic acid
- Catalog Number : PWC1308
- Packing Unit : 1 mg / 5 mg / 25 mg
- Appearance : Green Solid
- Storage Conditions : Protect from Light at 4 °C

## 2. Additional Information

- Fluorophore Label : Flamma® 749
- Reactive Group : Carboxylic acid
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Formula :  $C_{37}H_{46}N_2O_8S_2$
- Molecular Weight : 710.9 g/mol
- Excitation  $_{Max}$  :  $749 \pm 3$  nm
- Emission  $_{Max}$  :  $774 \pm 4$  nm
- Extinction Coefficient :  $\geq 200,000$  /cm·M

## 3. Description

Flamma® Fluors 749 Carboxylic acid is inactive form of near infrared (NIR) fluorescent dye induced from cyanine structure and used to generate a stable fluorescence signal in bioimaging. Flamma 749 fluorophore is attached with the hexanoic acid. 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 acid might be coupled with primary amine at small molecules or on biomolecules by standard amide bond coupling conditions, or it might be converted to a reactive amine form by using standard chemical techniques. Flamma® Fluors 749 acid can be utilized as a reference standard for dye-conjugates.