

Product Data Sheet

Date of Issue: 22 Feb 2019

1. Product Information

- Product Name : Flamma® 749 Maleimide
- Catalog Number : PWM1215
- Packing Unit : 1 mg / 5 mg / 25 mg
- Appearance : Green Solid
- Storage Conditions : Protect from Light at -20 °C

2. Additional Information

- Fluorophore Label : Flamma® 749
- Reactive Group : Maleimide
- Reactive Toward : Thiol
- Molecular Formula : $C_{43}H_{52}N_4O_9S_2$
- Molecular Weight : 833.02 g/mol
- Excitation $_{Max}$: 749 ± 3 nm
- Emission $_{Max}$: 774 ± 4 nm
- Extinction Coefficient : $\geq 200,000$ /cm·M

3. Description

Flamma® Fluors 749 Maleimide is a thiol reactive 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-conjugated primary and secondary antibodies are used as molecular probes for in vitro imaging and other fluorescence detection methods. Maleimides selectively label thiols of cysteine residue via 1,4-addition pathway, without interacting with amines, to form thioether linkage. Maleimides apparently do not react with methionine, histidine or tyrosine, but they might react with primary amines under strong basic environment. We offer Flamma Fluors 749 Maleimide for labeling of antibodies, peptides, proteins, ligands and in vivo NIR imaging.