

Product Data Sheet

Date of Issue: 5 Oct 2021

1. Product Information

- Product Name : Flamma® 749 NHS ester
- Catalog Number : PWS1301
- 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 : NHS ester
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Formula : $C_{41}H_{49}N_3O_{10}S_2$
- Molecular Weight : 807.97 g/mol
- Excitation $_{Max}$: 749 ± 3 nm
- Emission $_{Max}$: 774 ± 4 nm
- Extinction Coefficient : $\geq 200,000$ /cm·M

3. Description

Flamma® Fluors 749 NHS ester 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, Cy7.5, IRDye 750 and Dylight 755. Flamma 749 might be excited using the 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 antibody are used as molecular probes for in vitro imaging and other fluorescence detection methods. NHS esters readily react with amine-modified oligonucleotides or amino groups of proteins, i.e. the ϵ -amino groups of lysine or the amine terminus of nucleotides to form a chemically stable amide bond between dye and the biomolecule. We offer Flamma Fluors 749 dye for labeling of antibodies, peptides, proteins, ligands, and amplification substrates optimized for in vitro imaging.