

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} :	$749 \pm 3 \text{ nm}$
• Emission _{Max} :	$774 \pm 4 \text{ nm}$
• Extinction Coefficient :	$\geq 200,000 /\mathrm{cm} \cdot \mathrm{M}$

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.

WARNING: Intended for research use only. This product is not intended or approved for human, diagnostics, therapeutic or veterinary use. Use of this product for human or animal testing is extremely hazardous and may result in disease, severe injury, or death. MATERIAL SAFETY DATA: Review the complete Material Safety Data Sheet before use Material Safety Data Sheet (MSDS), Certificate of Analysis (COA) and Technical Information are available at http://www.bioacts.com or upon request.