

# Product Data Sheet

Date of Issue: 5 Oct 2021

## 1. Product Information

- Product Name : Flamma® 648 NHS ester
- Catalog Number : PWS1215
- Packing Unit : 1 mg / 5 mg / 25 mg
- Appearance : Blue Solid
- Storage Conditions : Protect from Light at -20 °C

## 2. Additional Information

- Fluorophore Label : Flamma® 648
- Reactive Group : NHS ester
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Formula :  $C_{39}H_{47}N_3O_{10}S_2$
- Molecular Weight : 781.93 g/mol
- Excitation<sub>Max</sub> :  $648 \pm 3$  nm
- Emission<sub>Max</sub> :  $663 \pm 4$  nm
- Extinction Coefficient :  $\geq 227,000$  /cm·M

## 3. Description

Flamma® Fluors 648 NHS ester is a reactive form of far-red fluorescent dye induced from cyanine structure and used to generate a stable fluorescence signal in bioimaging. The maxima of Ex/Em values are at 648/663 nm, similar to that of Alexa 647, Cy5 and Dylight 650. Flamma 648 might be excited using the 593 or 633 nm laser lines and displays excellent optical property. Flamma 648 can be conjugated to low-abundance biomolecules with great sensitivity and high molar ratios, allowing sensitive detection. 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 648 dye for labeling of antibodies, peptides, proteins, ligands, and amplification substrates optimized for cellular labeling and detection.