

# Product Data Sheet

Date of Issue: 26 Nov 2019

## 1. Product Information

- Product Name : Flamma® 648NA NHS ester
- Catalog Number : PNS1215
- 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 NA
- Reactive Group : NHS ester
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Weight : 581 g/mol
- Excitation<sub>Max</sub> : 646 ± 3 nm
- Emission<sub>Max</sub> : 665 ± 4 nm
- Extinction Coefficient : ≥ 155,000 /cm·M

## 3. Description

Flamma Fluors 648NA NHS ester is a reactive form of far-red fluorescent dye that analogous to cyanine 5 and used to generate a stable fluorescence signal in bioimaging. The maxima of Ex/Em values are at 646/665 nm, similar to that of Alexa 647, Cy 5, ATTO 647N and DyLight 650. Flamma 648 might be excited using 593 or 633 nm laser lines and displays excellent optical property. Flamma 648NA dye can be conjugated into low-abundance biomolecules or incorporated into oligonucleotide synthesis as a fluorescence label. NHS esters readily react with amino groups of proteins, i.e. the ε-amino groups of lysine, or amine terminus of modified nucleotides to form a chemically stable amide bond between dye and the biomolecule. We offer Flamma Fluors 648NA NHS ester for labeling of biomolecules and amino-modified oligonucleotide in solid phase oligonucleotide synthesis.