

# Product Data Sheet

Date of Issue: 5 Oct 2021

## 1. Product Information

- Product Name : Flamma® 774 Isothiocyanate
- Catalog Number : PWI1603
- 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® 774
- Reactive Group : Isothiocyanate
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Weight : 1013.21 g/mol
- Excitation<sub>Max</sub> : 774 ± 3 nm
- Emission<sub>Max</sub> : 800 ± 4 nm
- Extinction Coefficient : ≥ 200,000 /cm·M

## 3. Description

Flamma® Fluors 774 Isothiocyanate is a reactive form of near infrared (NIR) fluorescent dye and used to generate a stable fluorescence signal with high signal-to-noise ratio. The maxima of Ex/Em values are at 774/800 nm, similar to that of IRDye 800, Cy7.5 and CF770. Flamma 774 might be excited using 750 or 785 nm laser line or dye-pumped laser excitation and the emission occurs at NIR region. Flamma Fluors 774 is ideal for protein, antibody and nucleic acid labeling for in vitro imaging and other fluorescence detection methods. Isothiocyanates are moderately reactive but quite stable in water and most organic solvents. Isothiocyanates react to primary amine to form reasonably stable thiourea linkage. Whereas labeling of protein with NHS esters can typically be done at pH 8.3, conjugation for isothiocyanates usually require pH above 9. We offer Flamma Fluors 774 isothiocyanate for labeling of antibodies, peptides, proteins, ligands and in vivo NIR imaging.