

Product Data Sheet

Date of Issue: 7 Oct 2021

1. Product Information

- Product Name : Flamma® 675 Isothiocyanate
- Catalog Number : KWI1515
- 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® 675
- Reactive Group : Isothiocyanate
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Formula : $C_{46}H_{52}N_4O_{13}S_5$
- Molecular Weight : 1029.25 g/mol
- Excitation $_{Max}$: 675 ± 3 nm
- Emission $_{Max}$: 691 ± 4 nm
- Extinction Coefficient : $\geq 118,000$ /cm·M

3. Description

Flamma® Fluors 675 Isothiocyanate is a reactive form of near infrared (NIR) fluorescent dye induced from benzindocyanine structure and used to generate a stable fluorescence signal in bioimaging. The maxima of Ex/Em values are at 675/691 nm, similar to that of Alexa 680, Cy5.5, IRDye 680LT and DyLight 680. Flamma 675 might be excited using 633 nm laser line and the emission occurs at biological tissue permeable NIR region. 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 675 isothiocyanate for labeling of antibodies, peptides, proteins, ligands, and amplification substrates optimized for cellular labeling and detection.