

# Product Data Sheet

Date of Issue: 7 Oct 2021

## 1. Product Information

- Product Name : Flamma® 648 Thiol
- Catalog Number : KWT1042
- 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 : Thiol
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Formula :  $C_{37}H_{49}N_3O_7S_3$
- Molecular Weight : 743.99 g/mol
- Excitation  $_{Max}$  :  $648 \pm 3$  nm
- Emission  $_{Max}$  :  $663 \pm 4$  nm
- Extinction Coefficient :  $\geq 227,000$  /cm·M

## 3. Description

Flamma® Fluors 648 Thiol is inactive form of far-red fluorescent dye induced from cyanine structure and used to generate a stable fluorescence signal in bioimaging. The thiol is attached to Flamma 648 fluorophore through a spacer. 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 593 or 633 nm laser lines and displays excellent optical property. Flamma® Fluors 648 thiol can be labeled to biomolecules through a disulfide bond formation with thiol of cysteine residue or can be utilized as a reference standard for dye-conjugates.