

Product Data Sheet

Date of Issue: 7 Oct 2021

1. Product Information

- Product Name : Flamma® 648 Maleimide
- Catalog Number : KWM1042
- 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 : Maleimide
- Reactive Toward : Thiol
- Molecular Formula : $C_{41}H_{50}N_4O_9S_2^-$
- Molecular Weight : 806.99 g/mol
- Excitation $_{Max}$: 648 ± 3 nm
- Emission $_{Max}$: 663 ± 4 nm
- Extinction Coefficient : $\geq 227,000$ /cm·M

3. Description

Flamma® Fluors 648 Maleimide is a thiol reactive bright yellow dye that 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, ATTO 647N and DyLight 650. Flamma 648 might be excited using 593 or 633 nm laser line and displays excellent optical property. Flamma 648 maleimide can be conjugated to low-abundance of biomolecules with great sensitivity allowing sensitive detection. Maleimides selectively label thiols of cysteine residue via 1,4-addition pathway, without interacting with amines, to form thioether linkage. Maleimides apparently do not react with methionine, histidine or tyrosine, but they might react with primary amines under strong basic environment. BioActs offers Flamma® 648 maleimide for labeling of thiols on antibodies, peptides, proteins, ligands and amplification substrates optimized for cellular labeling and detection.