

Product Data Sheet

Date of Issue: 7 Oct 2021

1. Product Information

- Product Name : Flamma® 581 Maleimide
- Catalog Number : KWM1415
- Packing Unit : 1 mg / 5 mg / 25 mg
- Appearance : Purple Solid
- Storage Conditions : Protect from Light at -20 °C

2. Additional Information

- Fluorophore Label : Flamma® 581
- Reactive Group : Maleimide
- Reactive Toward : Thiol
- Molecular Formula : $C_{47}H_{52}N_4O_{15}S_4$
- Molecular Weight : 1041.19 g/mol
- Excitation $_{Max}$: 578 ± 3 nm
- Emission $_{Max}$: 593 ± 4 nm
- Extinction Coefficient : $\geq 109,000$ /cm·M

3. Description

Flamma® Fluors 581 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 578/593 nm, similar to that of Alexa 594 and DyLight 594. Flamma 581 might be excited using 561, 568 or 578 nm laser line and displays excellent optical property. Flamma 581 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® 581 maleimide for labeling of thiols on antibodies, peptides, proteins, ligands and amplification substrates optimized for cellular labeling and detection.