

Product Data Sheet

Date of Issue: 5 Oct 2021

1. Product Information

- Product Name : Flamma® 581 Vinylsulfone
- Catalog Number : PWA1415
- Packing Unit : 1 mg / 5 mg / 25 mg
- Appearance : Purple Solid
- Storage Conditions : Protect from Light at 4 °C

2. Additional Information

- Fluorophore Label : Flamma® 581
- Reactive Group : Vinylsulfone
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Formula : $C_{45}H_{53}N_3O_{15}S_5$
- Molecular Weight : 1036.24 g/mol
- Excitation $_{Max}$: 581 ± 3 nm
- Emission $_{Max}$: 596 ± 4 nm
- Extinction Coefficient : $\geq 109,000$ /cm·M

3. Description

Flamma® Fluors 581 Vinylsulfone is pH insensitive reactive form of bright orange dye that used to generate a stable fluorescence signal in bioimaging. Vinylsulfone reactive group, developed by BioActs' leading technology, is stable in a wide range of pH and at the high temperature. The maxima of Ex/Em values are at 581/596 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 can be conjugated to low-abundance of biomolecules with great sensitivity and high d/P ratio, enabling sensitive detection. Vinylsulfones readily react with primary amines of amino-modified oligonucleotides or of proteins to form a stable amino linkage between dye and the biomolecule. We offer Flamma 581 Vinylsulfone for labeling of antibodies, peptides, proteins, ligands and amplification substrates optimized for cellular labeling and detection.