

Product Data Sheet

Date of Issue: 22 Feb 2019

1. Product Information

- Product Name : ICG Maleimide
- Catalog Number : PWM1301
- Packing Unit : 1 mg / 5 mg / 25 mg
- Appearance : Green Solid
- Storage Conditions : Protect from Light at -20 °C

2. Additional Information

- Fluorophore Label : ICG
- Reactive Group : Maleimide
- Reactive Toward : Thiol
- Molecular Formula : $C_{51}H_{56}N_4O_6S$
- Molecular Weight : 853.08 g/mol
- Excitation $_{Max}$: 785 ± 3 nm
- Emission $_{Max}$: 812 ± 4 nm
- Extinction Coefficient : $\geq 218,000$ /cm·M

3. Description

ICG Maleimide is thiol reactive near infrared (NIR) fluorescent dye and used to generate a stable fluorescence signal in bioimaging. NIR fluorescence allows to observe the deep image from the surface of skin and being utilized in a wide range of research fields. The maxima of Ex/Em values are at 785/821 nm. ICG might be excited using 750-800 nm laser line or LED and displays excellent optical property. 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. We offer ICG maleimide for labeling of antibodies, peptides, proteins, ligands, and amplification substrates optimized for cellular labeling and NIR imaging.