

Product Data Sheet

Date of Issue: 7 Oct 2021

1. Product Information

- Product Name : ICG Thiol
- Catalog Number : PWT1301
- 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 : Thiol
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Formula : $C_{47}H_{55}N_3O_4S_2$
- Molecular Weight : 790.3 g/mol
- Excitation_{Max} : 785 ± 3 nm
- Emission_{Max} : 812 ± 4 nm
- Extinction Coefficient : $\geq 163,000$ /cm·M

3. Description

ICG Thiol is an inactive form of near infrared (NIR) fluorescent dye and used to generate a stable fluorescence signal in bioimaging. The thiol is attached to ICG fluorophore through a spacer. 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. ICG 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.