

Product Data Sheet

Date of Issue: 22 Feb 2019

1. Product Information

- Product Name : Biotin, ICG
- Catalog Number : RFP0615
- Packing Unit : 5 mg / 25 mg
- Appearance : Green Solid
- Storage Conditions : Protect from Light at 4 °C

2. Additional Information

- Fluorophore Label : ICG
- Reactive Group : Biotin
- Reactive Toward : Avidin / Streptavidin
- Molecular Formula : $C_{55}H_{66}N_6O_6S_2$
- Molecular Weight : 971 g/mol
- Excitation_{Max} : 785 ± 3 nm
- Emission_{Max} : 812 ± 4 nm
- Extinction Coefficient : $\geq 218,000 / \text{cm} \cdot \text{M}$

3. Description

Biotin-ICG is avidin and streptavidin reactive NIR fluorescence probe that indocyanine green (ICG) dye is covalently attached to biotin. ICG is clinically approved NIR dye, and maxima of Ex/Em values are at 785/812 nm. Biotin binds to avidin and streptavidin in high affinity, and both proteins can be conjugated with up to four biotin probes. The bond formation between biotin and avidin/streptavidin is rapid, and once formed, is stable at high temperature and in a wide range of pH, organic solvents and denaturing agents. Fluorescence conjugated biotin-avidin/streptavidin pair has been utilized in a wide range of applications such as cell surface labeling, immunohistochemistry, ELISA, affinity purification, FACS, EMSA, etc. BioActs offers Biotin- ICG as effective detecting and analytic NIR fluorescence probe for diverse applications in medical diagnostics, in vitro, vivo and animal model study.