

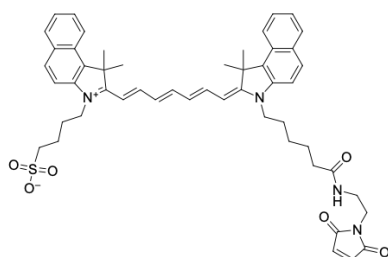
ICG maleimide

<http://www.lumiprobe.com/p/icg-maleimide>

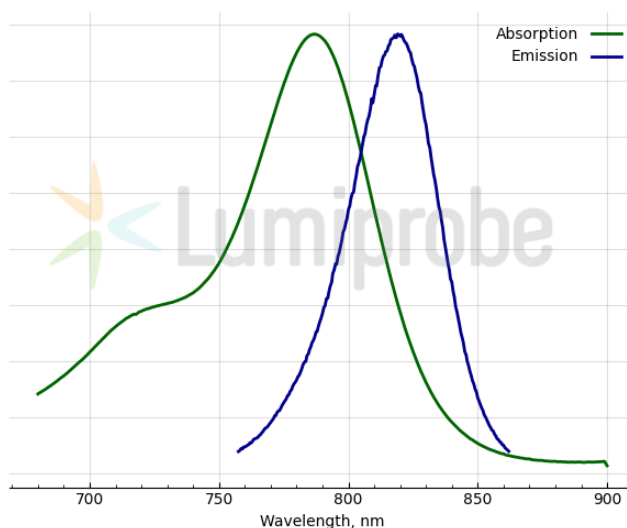
Indocyanine Green (ICG, IC Green, Foxgreen) is a negatively charged tricarbocyanine dye widely used for imaging and flow cytometry due to its low toxicity and near-infrared fluorescence emission.

ICG has an absorption maximum at 787 nm with slight absorption in the visible range and a fluorescence emission maximum at 819 nm. The minimal light scattering and low autofluorescence in this spectral range result in a significantly reduced background and improved signal-to-noise ratios, thereby enhancing detection sensitivity.

ICG maleimide is a thiol-reactive dye for labeling of protein SH groups, and it can be used to attach ICG fluorophore to proteins and peptides containing cysteine residues, as well as to other thiolated molecules (such as thiol-containing oligonucleotides). Cystines should be reduced with TCEP (tris-carboxyethylphosphine) or with another appropriate reductant prior to the labeling.



Structure of ICG maleimide



Indocyanine Green (ICG) absorbance and emission spectra

General properties

Appearance:	dark green powder
Molecular weight:	853.08
CAS number:	2143933-81-5
Molecular formula:	C ₅₁ H ₅₆ N ₄ O ₆ S
Solubility:	DMSO (with sonication)
Quality control:	NMR ¹ H and HPLC-MS (90+%)
Storage conditions:	12 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.

Spectral properties

Excitation/absorption maximum, nm:	787
ε, L·mol ⁻¹ ·cm ⁻¹ :	232000
Emission maximum, nm:	819

Fluorescence quantum yield: 0.09