

## iFluor® 450 acid

Catalog Number: 2905

Unit Size: 5 mg

### Product Details

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Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

### Chemical Properties

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Appearance	Solid
Molecular Weight	N/A
Soluble In	DMSO

### Spectral Properties

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Excitation Wavelength	451 nm
Emission Wavelength	502 nm

### Applications

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AAT Bioquest's iFluor® dyes are designed for precise protein labeling, with a focus on antibody conjugation. These dyes are characterized by their exceptional brightness, photostability, improved aqueous solubility, and minimal quenching when conjugated to proteins. They are effectively excited by key laser lines utilized in fluorescence-based instrumentation, including 350, 405, 488, 555, and 633 nm. The iFluor® 450 dye, in particular, is a 405 nm excitable fluorophore that emits green fluorescence with an emission maximum at 502 nm. Its moderate Stokes Shift, combined with stable fluorescence across a broad pH range (pH 3-11), makes it particularly well-suited for multicolor flow cytometry and confocal microscopy applications.

### iFluor® 450 Key Features

- **High performance:** iFluor® 450 shows brighter fluorescence than Alexa Fluor® 430 with much stronger absorption
- **Ex/Em maxima:** 451/502 nm
- **Quantum yield:** 0.82
- **Extinction coefficient:** 40,000 cm<sup>-1</sup>M<sup>-1</sup>

iFluor® 450 acid is a non-reactive compound that can be employed as a reference standard in studies utilizing iFluor® 450 conjugates. It is also suitable for use as a control in confocal microscopy, immunocytochemistry (ICC), high-content screening (HCS), flow cytometry, and live cell imaging applications. Furthermore, it can be utilized in the synthesis of activated esters and STP and can be coupled to hydrazines, hydroxylamines, or amines in aqueous solutions using water-soluble carbodiimides (e.g., EDAC). This allows for the conjugation of the dye to amino-containing molecules, such as proteins, antibodies, amine-modified oligonucleotides, and peptides.