

## iFluor® 405 acid

Catalog Number: 2901

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	403 nm
Emission Wavelength	427 nm

### Applications

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iFluor® 405 is a blue-fluorescent dye that exhibits spectral properties similar to Cascade Blue and Alexa Fluor® 405. It offers significant advantages over traditional fluorophores, including enhanced brightness, superior photostability, improved water solubility, and greater pH resistance across a broad range of pH 3 to pH 11. With an excitation peak at 403 nm and maximum emission at 427 nm, iFluor® 405 is ideally suited for use with 405 nm line of the blue diode laser. Its exceptional photostability, coupled with its moderate brightness, makes conjugates of iFluor® 405 an excellent choice for direct imaging of high-abundance targets, and is particularly useful in multicolor applications, such as flow cytometry and super-resolution microscopy (e.g., SIM and STORM).

### iFluor® 405 Key Features

- **High performance:** iFluor® 405 shows brighter fluorescence than Alexa Fluor® 405 and Cascade Blue
- **Ex/Em maxima:** 403/427 nm
- **Quantum yield:** 0.91
- **Extinction coefficient:** 37,000 cm<sup>-1</sup>M<sup>-1</sup>
- **Spectrally similar dyes:** Cascade Blue, DyLight® 405, Alexa Fluor® 405

iFluor® 405 acid is a non-reactive compound that can be employed as a reference standard in studies utilizing iFluor® 405 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.