

## iFluor® 488 Tetrazine

Catalog Number: 1014

Unit Size: 1 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	828.83
Soluble In	DMSO

### Spectral Properties

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Excitation Wavelength	491 nm
Emission Wavelength	516 nm

### Applications

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The tetrazine-trans-cyclooctene (TCO) ligation constitutes a non-toxic biomolecule labeling method of unparalleled speed. A tetrazine-functionalized molecule reacts with a TCO-functionalized molecule, forming a stable conjugate via a dihydropyrazine moiety. This has gained popularity due to its extremely fast kinetics. AAT Bioquest offers a group of tetrazine- and TCO-containing dyes for exploring various biological systems that can use this powerful click reaction. iFluor® 488 tetrazine can be readily used to label TCO-modified biological molecules for fluorescence imaging and other fluorescence-based biochemical analysis. The conjugates prepared with iFluor® 488 dyes are far superior to those of fluorescein derivatives such as FITC. iFluor® 488 conjugates are significantly brighter than fluorescein conjugates and are much more photostable. Additionally, the fluorescence of iFluor® 488 is not affected by pH (4-10). This pH insensitivity is a major improvement over fluorescein, which emits its maximum fluorescence only at pH above 9. iFluor® 488 has spectral properties similar to Alexa Fluor® 488. In some cases, it demonstrates brighter signals (Alexa Fluor® is the trademark of Invitrogen).