

iFluor™ 488 TetrazineCatalog number: 1014
Unit size: 1 mg**Product Details**

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

Chemical Properties

Appearance	Solid
Molecular Weight	831.71
Soluble In	DMSO

Spectral Properties

Excitation Wavelength	491 nm
Emission Wavelength	516 nm

Applications

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 compared to conjugates 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).