

## Cy3 tetrazine

Catalog Number: 910  
Unit Size: 1 mg

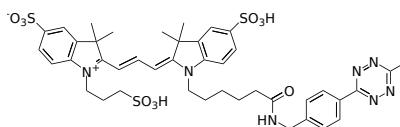
### Product Details

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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 red
Molecular Weight	908.07
Soluble In	DMSO
Chemical Structure	 The chemical structure shows a complex molecule with a central tetrazine ring. It features a 1,4-bis(2-sulfophenyl)-1,4-diphenyl-1,2-dihydro-5H-pyrazine-5,7-dione core. Attached to the core are two 4-sulfophenyl groups, a 4-aminobiphenyl group, and a 4-aminophenyl group.

### Spectral Properties

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Excitation Wavelength	555 nm
Emission Wavelength	569 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 inverse electron demand cycloaddition reaction has gained popularity due to the potential for extremely fast cycloaddition kinetics with TCO as the dienophile. AAT Bioquest offers a group of tetrazine- and TCO-containing dyes for exploring various biological systems that can use this powerful click reaction. Cy3-tetrazine has been used to label biological molecules for fluorescence imaging and other fluorescence-based biochemical analysis. It is widely used for labeling peptides, proteins and oligos etc. Cy3 dyes have enhanced fluorescence upon binding to proteins.