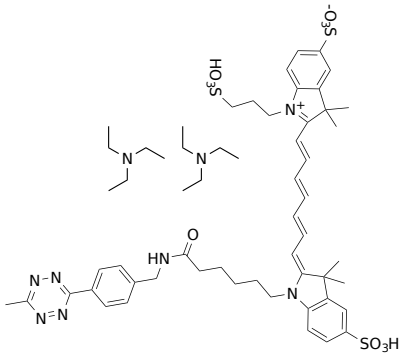
Cy7 tetrazine

Catalog Number: 905
Unit Size: 1 mg

Product Details

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

Chemical Properties

Appearance	Solid deep blue
Molecular Weight	1162.54
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	756 nm
Emission Wavelength	779 nm

Applications

Cy7 tetrazine is an excellent building block that can be readily used to label TCO-modified biological molecules (e.g., peptides, proteins and oligos etc) for NIR fluorescence in vivo imaging and other fluorescence-based biological applications. The inverse electron demand Diels–Alder (IEDDA) between 1,2,4,5-tetrazine and strained alkene (such as trans-cyclooctene, TCO) is a well-established bioorthogonal reaction. It is generally considered to be the fastest click reaction. Since the first report on IEDDA reaction, several kinds of strained alkenes/alkynes and tetrazine analogs have been synthesized, and these functional group pairs have been applied to drug discovery, life science research and nanomaterials. Due to the extremely rapid reaction rate of IEDDA under mild conditions such as room temperature, neutral pH, and in aqueous media, this reaction has been a highly useful ligation approach for a variety of bioconjugations. AAT Bioquest offers a group of tetrazine- and TCO-containing dyes for exploring various biological systems that can use this powerful click reaction.