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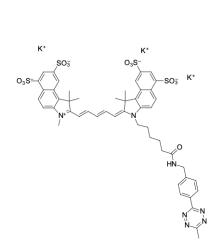
sulfo-Cyanine 5.5 tetrazine

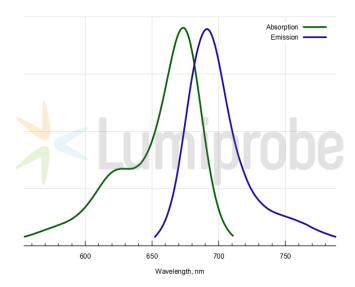
http://www.lumiprobe.com/p/sulfo-cy55-tetrazine

sulfo-Cyanine5.5 is a water-soluble, hydrophilic far-red fluorophore, an analog of Cy5.5[®]. Like other cyanine dyes, sulfo-Cyanine5.5 has an outstanding molar extinction coefficient, giving rise to its bright fluorescence. The molecule contains four sulfo groups that provide hydrophilicity and negative charge to the fluorophore and minimize non-specific binding.

This reagent contains tetrazine moiety that reacts with trans-cyclooctenes, cyclopropenes, and some strained cyclooctynes to form stable conjugates via an inverted electron demand [4+2]-cycloaddition (IEDDA).

The reagent possesses high aqueous solubility and hydrophilicity and is recommended for labeling biomolecules in an aqueous environment.





Structure of sulfo-Cyanine 5.5 tetrazine

Absorption and emission spectra of sulfo-Cyanine 5.5

General properties

Appearance: dark blue powder

Molecular weight: 1200.53

Molecular formula: $C_{50}H_{48}K_3N_7O_{13}S_4$

Solubility: good in water, DMF, DMSO

Quality control: NMR ¹H and HPLC-MS (95+%)

Storage conditions: 24 months after receival at -20°C in the dark. Transportation: at room temperature

for up to 3 weeks. Desiccate. Avoid prolonged exposure to light.

Spectral properties

Excitation/absorption maximum, nm: 673 ϵ , L·mol $^{-1}$ ·cm $^{-1}$: 211000 Emission maximum, nm: 691 Fluorescence quantum yield: 0.21 CF_{260} : 0.09 CF_{280} : 0.11

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