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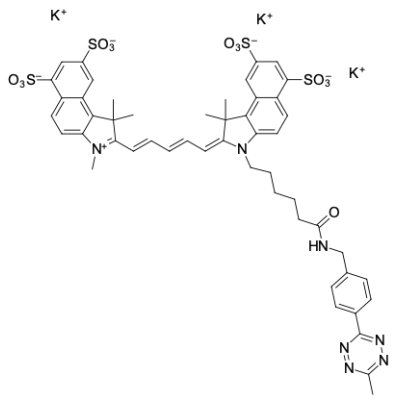
sulfo-Cyanine5.5 tetrazine

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

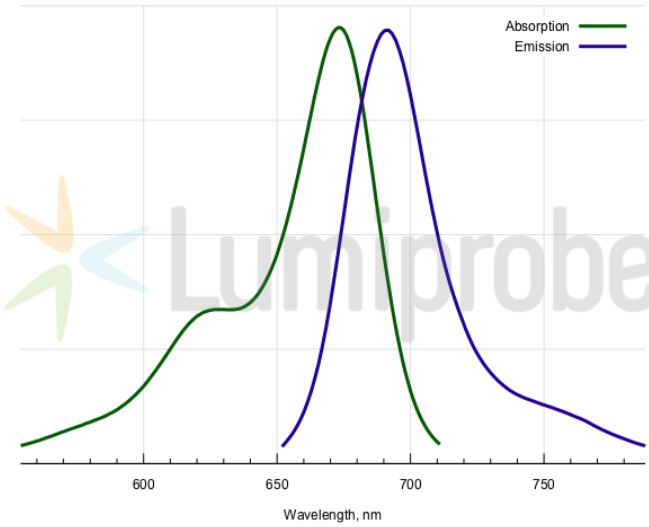
sulfo-Cyanine5.5 is a water-soluble, hydrophilic far-red fluorophore, an analog of Cy5.5®. Like other cyanine dyes, sulfo-Cyanine5.5 has an outstanding molar extinction coefficient, giving rise to its bright fluorescence. The molecule contains four sulfo groups that provide hydrophilicity and negative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



Absorption and emission spectra of sulfo-Cyanine5.5

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, $L \cdot mol^{-1} \cdot cm^{-1}$:	211000
Emission maximum, nm:	691
Fluorescence quantum yield:	0.21
CF_{260}:	0.09
CF_{280}:	0.11