

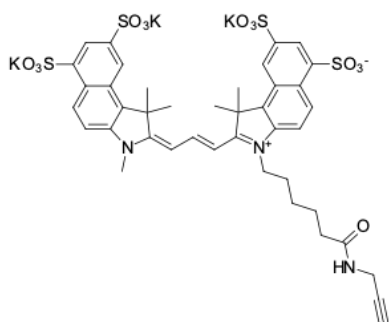
sulfo-Cyanine3.5 alkyne

<http://www.lumiprobe.com/p/sulfo-cy35-alkyne>

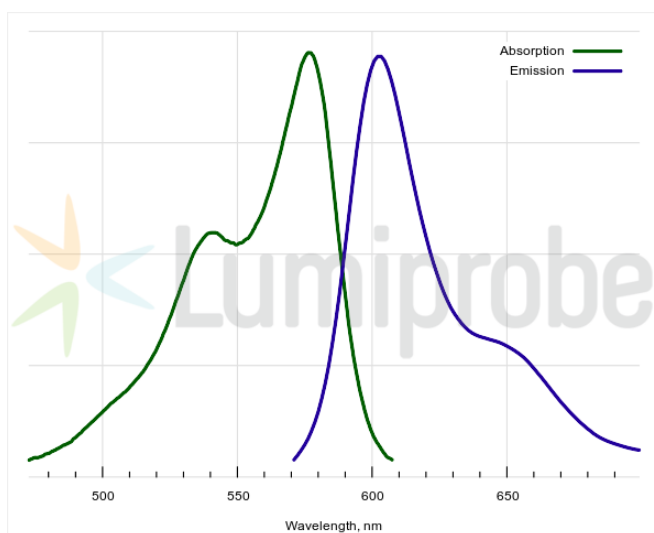
sulfo-Cyanine3.5 is a dye with fluorescence in the orange spectrum range (absorption maximum at 576 nm; emission maximum at 603 nm). Its absorption and emission spectra are between that of Cyanine3 and Cyanine5. Therefore, sulfo-Cyanine3.5 is commonly used as a FRET-donor in a pair with Cyanine5, as a FRET-acceptor in a pair with Cyanine3, and in BRET experiments.

sulfo-Cyanine3.5 is a sulfonated derivative with four sulfo groups, which allows its high hydrophilicity and performing all reactions with this reagent in aqueous solutions without adding organic solvents.

The reagent is an alkyne derivative of sulfo-Cyanine3.5 dye for copper-catalyzed click chemistry. The terminal alkynyl (acetylene) group allows conjugating the fluorophore with the molecules containing an azide group through 1,3-dipolar cycloaddition in the presence of a copper(I) catalyst.



Structure of sulfo-Cyanine3.5 alkyne



Absorption and emission spectra of sulfo-Cyanine3.5

General properties

Appearance:	dark colored solid
Mass spec M+ increment:	914.2
Molecular weight:	1028.32
Molecular formula:	C ₄₁ H ₄₀ N ₃ K ₃ O ₁₃ S ₄
Solubility:	good in water, DMF, DMSO
Quality control:	NMR ¹ H, HPLC-MS (95%)
Storage conditions:	Storage: 24 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid prolonged exposure to light. Desiccate.

Spectral properties

Excitation/absorption maximum, nm:	576
ε, L·mol ⁻¹ ·cm ⁻¹ :	139000
Emission maximum, nm:	603
Fluorescence quantum yield:	0.11
CF ₂₆₀ :	0.16
CF ₂₈₀ :	0.17