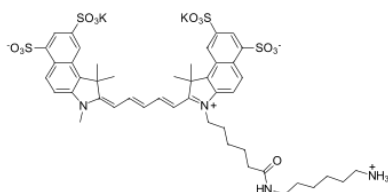


sulfo-Cyanine5.5 amine

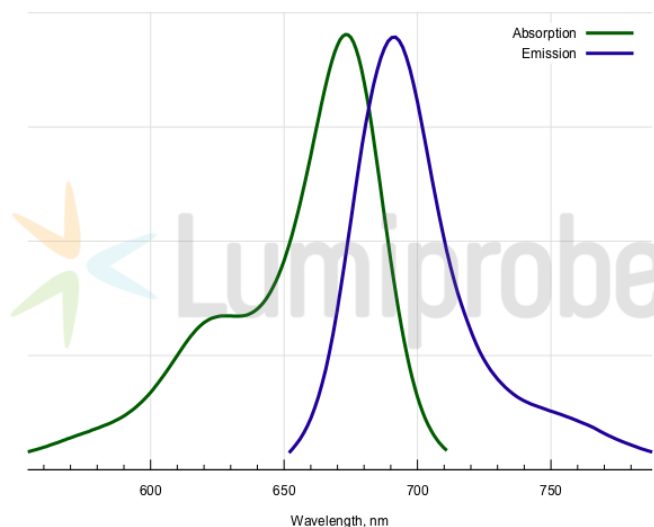
<http://www.lumiprobe.com/p/sulfo-cy55-amine>

sulfo-Cyanine5.5 is a water-soluble cyanine dye for far red / NIR applications such as in vivo imaging. The dye possesses four sulfonate groups, rendering it highly hydrophilic and water-soluble. As well as other cyanines, sulfo-Cyanine5.5 has an outstanding extinction coefficient that makes it a bright fluorescent label for the far-red region.

This is an amine-containing fluorescent dye. The amine group is separated from the fluorophore by a relatively long linker that facilitates conjugation. The aliphatic primary amine group can be coupled with various electrophiles (activated esters, epoxides, etc.) and used in enzymatic transamination labeling.



Structure of sulfo-Cyanine5.5 amine



Absorption and emission spectra of sulfo-Cyanine5.5 fluorophore

General properties

Appearance: dark blue solid
Molecular weight: 1077.41
CAS number: 2183440-46-0
Molecular formula: $C_{44}H_{44}K_4N_4O_{12}S_4$
IUPAC name: (E)-4-[(2E,4E)-5-{5-[6-(6-Aminohexylamino)-6-oxohexyl]-3,3-dimethyl-10,12-bis(oxysulfonyl)-5-azatricyclo[7.4.0.0^{2,6}]trideca-1,4,6,8,10,12-hexaen-4-yl]-2,4-pentadienylidene]-3,3-dimethyl-5-methyl-5-azatricyclo[7.4.0.0^{2,6}]trideca-1,6,8,10,12-pentaene-10,12-disulfonic acid dipotassium salt
Solubility: good in water, DMF, DMSO
Quality control: NMR ¹H, 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: 673
 ϵ , L·mol⁻¹·cm⁻¹: 211000
Emission maximum, nm: 691
Fluorescence quantum yield: 0.21
CF₂₈₀: 0.09
CF₂₈₅: 0.11