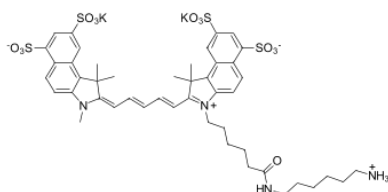


## sulfo-Cyanine5.5 amine

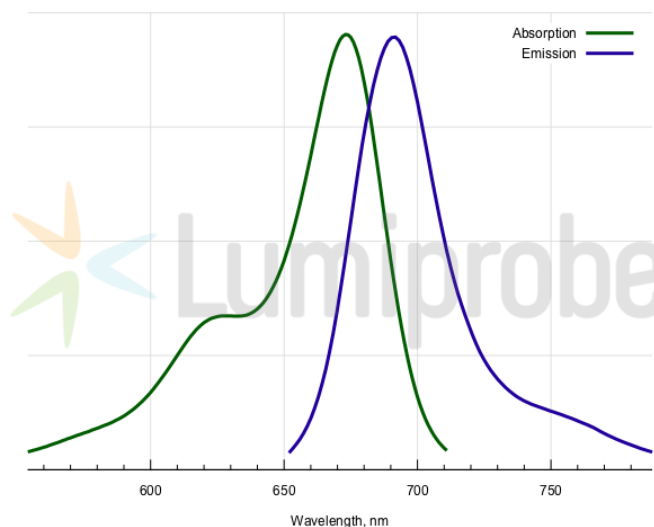
<http://www.lumiprobe.com/p/sulfo-cy55-amine>

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:  $C_{44}H_{44}K_2N_2O_{10}S_4$   
IUPAC name: (E)-4-[(2E,4E)-5-[5-[6-(6-Aminoethylamino)-6-oxohexyl]-3,3-dimethyl-10,12-bis(oxosulfonyl)-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 <sup>1</sup>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.  
Legal statement: This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.

### Spectral properties

Excitation/absorption maximum, nm: 673  
 $\epsilon$ , L·mol<sup>-1</sup>·cm<sup>-1</sup>: 211000  
Emission maximum, nm: 691  
Fluorescence quantum yield: 0.21  
CF<sub>280</sub>: 0.09  
CF<sub>290</sub>: 0.11