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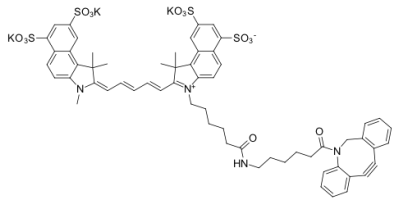
sulfo-Cyanine5.5 DBCO

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

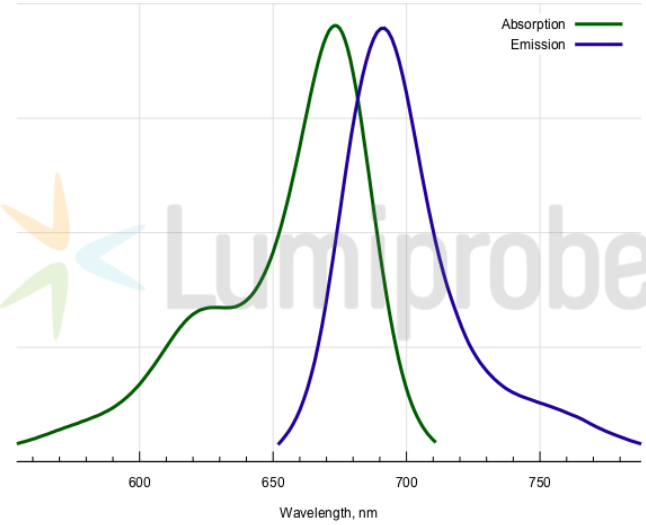
Sulfo-Cyanine5.5 is a dye with far-red emission approaching NIR range. It has found application in non-invasive live-organism imaging. This particular derivative of sulfo-Cyanine5.5, the DBCO (or ADIBO) derivative, contains cycloalkyne for copper-free conjugation of this fluorophore with various organic azides.

The reaction between DBCO and azides is blazingly fast, orders of magnitude exceeding the rate of copper-catalyzed reaction between azides and terminal alkynes. It is also catalyst-free.

This reagent can be used to conjugate sulfo-Cyanine5.5 dye to a variety of azide-labeled molecules.



Structure of sulfo-Cyanine5.5 DBCO



Absorption and emission spectra of sulfo-Cyanine5.5

General properties

Appearance:	dark blue solid
Molecular weight:	1317.69
Molecular formula:	$C_{61}H_{59}N_4K_3O_{14}S_4$
Solubility:	good in water, DMF, DMSO
Quality control:	NMR ^1H, HPLC-MS (95%)

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