

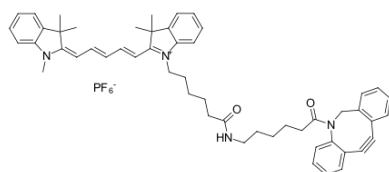
## Cyanine5 DBCO

<http://www.lumiprobe.com/p/cy5-dbc>

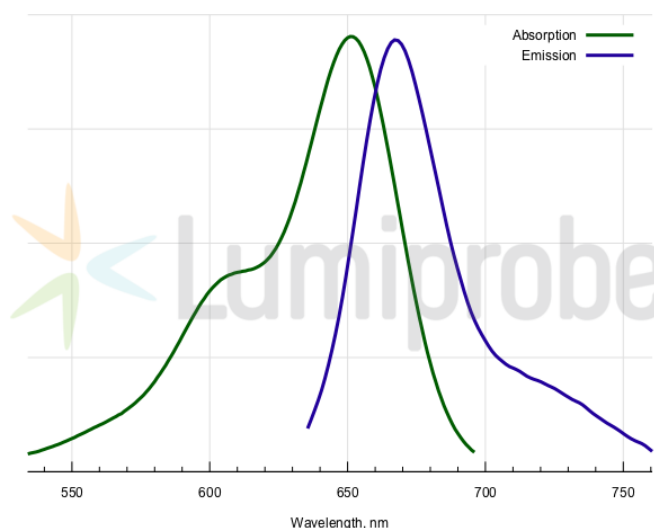
A derivative of Cyanine5 red-emitting fluorophore possessing DBCO (dibenzocyclooctyne, also known as ADIBO, azodibenzocyclooctyne) group for copper free click chemistry.

Strained cycloalkynes, such as cyclooctynes, react with azides very rapidly in the absence of copper catalyst in a strain-promoted alkyne-azide cycloaddition (SPAAC). This reaction is very fast, mild, and biocompatible.

Compared to other cycloalkynes, DBCO provide among the fastest reaction kinetics, still possessing good stability.



**Structure of Cyanine5 DBCO**



**Absorption and emission spectra of Cyanine5**

### General properties

Appearance:	dark blue solid
Mass spec M+ increment:	928.4
Molecular weight:	929.03
Molecular formula:	C <sub>53</sub> H <sub>59</sub> N <sub>4</sub> F <sub>6</sub> O <sub>2</sub> P
Solubility:	good in DMF, DMSO, chlorinated organic solvents, practically insoluble in water (<1 uM, < 1 mg/L)
Quality control:	NMR <sup>1</sup> H, HPLC-MS (95%)
Storage conditions:	Storage: 12 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:	646
ε, L·mol <sup>-1</sup> ·cm <sup>-1</sup> :	250000
Emission maximum, nm:	662
Fluorescence quantum yield:	0.2

Cy® is a trademark of GE Healthcare.