

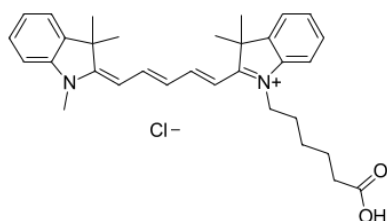
## Cyanine5 carboxylic acid

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

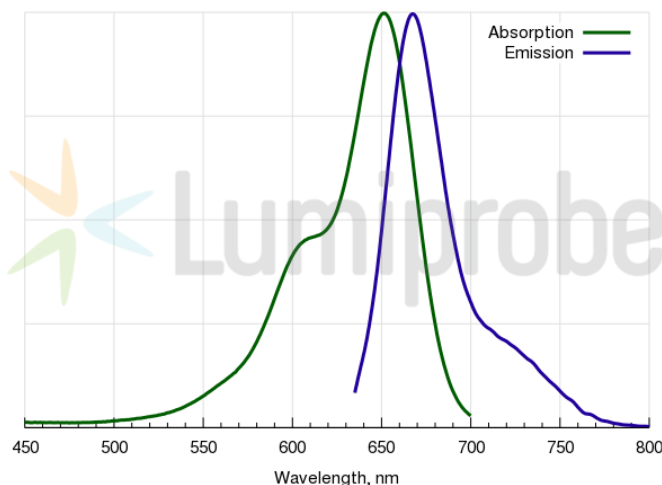
Non-activated carboxylic acid, an analog of Cy5® free carboxylic acid. Contains Cyanine5 fluorophore.

This dye has limited water solubility, but can be dissolved in mixtures of water with organic phase (DMF, DMSO, alcohols) to obtain useful concentrations of the material in solution. [Water-soluble version](#) is available.

This molecule can be considered non-reactive dye for the use in control samples, and for instrument calibration. For coupling with amines and protein labeling, consider using [Cyanine5 NHS ester](#), or water-soluble [sulfo-Cyanine5 NHS ester](#).



**Cyanine5 free carboxylic acid structure**



**Cyanine5 absorbance and emission spectra**

### General properties

Appearance:	dark blue powder
Molecular weight:	519.12
CAS number:	1032678-07-1 (chloride), 195867-59-5 (inner salt), 766503-38-2 (without anion)
Molecular formula:	C <sub>32</sub> H <sub>39</sub> ClN <sub>2</sub> O <sub>2</sub>
IUPAC name:	3H-Indolium, 2-[5-[1-(5-carboxypentyl)-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1,3,3-trimethyl-, chloride
Solubility:	soluble in organic solvents (DMF, DMSO, dichloromethane), very poorly soluble in water (0.25 mM, 130 mg/L)
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.

### 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
CF <sub>260</sub> :	0.03
CF <sub>280</sub> :	0.04

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