

## Cyanine 5 NHS ester (A270169)

### Specifications:

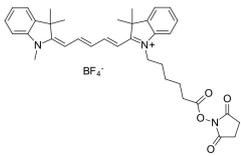
Name:	Cyanine 5 NHS ester
Description:	<p>During the last years, Cyanine 5 (an analog of Cy5®) has become an incredibly popular label in life science research and diagnostics. The fluorophore has its emission maximum in the red region, where many CCD detectors exhibit maximum sensitivity, and biological objects show low background. The dye color is very intense, therefore quantities as small as 1 nmol can be detected in gel electrophoresis by naked eye. This Cyanine 5 NHS ester (analog to Cy5® NHS ester) is a reactive dye for the labeling of amino-groups in peptides, proteins, and oligonucleotides. This dye requires a small amount of organic co-solvent (such as DMF or DMSO) to be used in labeling reactions. This reagent is ideal for very cost-efficient labeling of soluble proteins as well as all kinds of peptides and oligonucleotides. This reagent also works well in organic solvents for small molecule labeling. For more sophisticated targets such as easily degradable proteins, when the use of DMF or DMSO is undesirable, consider using water-soluble sulfo-Cyanine 5 NHS ester which does not require any co-solvent, and features very similar fluorescent properties. Cyanine 5 fluorophore is compatible with various instrumentation including many fluorescent microscopes, imagers, scanners, and fluorescence readers. A number of various Cyanine 5 analogs exist - Cyanine 5 NHS ester can replace activated esters of Cy5®, Alexa Fluor 647, and DyLight 649.</p>
Absorption Maxima:	646 nm
Extinction Coefficient:	250000 M <sup>-1</sup> cm <sup>-1</sup>
Emission Maxima:	662 nm
Fluorescence Quantum Yield:	0.2
CAS Number:	1263093-76-0
CF <sub>260</sub> :	0.03
CF <sub>280</sub> :	0.04
Purity:	95% (by 1H NMR and HPLC-MS).
Molecular Formula:	C <sub>36</sub> H <sub>42</sub> N <sub>3</sub> BF <sub>4</sub> O <sub>4</sub>
Molecular Weight:	667.54 kDa
Product Form:	Dark blue solid.
Solubility:	Very poorly soluble in water (0.19 mM = 127 mg/L). Good in polar (DMSO, DMF) and chlorinated (DCM, chloroform) organic solvents.
Storage:	Shipped at room temperature. Upon delivery, store in the dark at -20°C. Avoid prolonged exposure to light. Desiccate.

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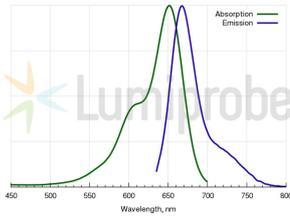
Specifications continued:

Disclaimer: This product is for research use only. It is not intended for diagnostic or therapeutic use.

Images:



Cyanine 5 NHS ester structure.



Cyanine 5 excitation and emission spectra.