

**Product Name:** FNIR-Tag, NHS ester

**Catalog No.:** 7373

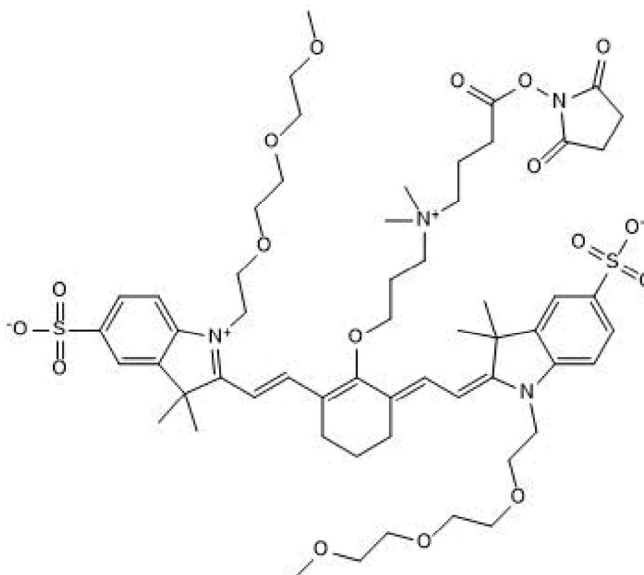
**Batch No.:** 1

CAS Number: 2365033-54-9

IUPAC Name: 2-((E)-2-((E)-2-(3-((4-((2,5-dioxopyrrolidin-1-yl)oxy)-4-oxobutyl)dimethylammonio)propoxy)-3-(2-((E)-1-(2-(2-(2-methoxyethoxy)ethoxy)ethyl)-3,3-dimethyl-5-sulfonatoindolin-2-ylidene)ethylidene)cyclohex-1-en-1-yl)vinyl)-1-(2-(2-(2-methoxyethoxy)ethoxy)ethyl)-3,3-dimethyl-3H-indol-1-ium-5-sulfonate

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>57</sub> H <sub>80</sub> N <sub>4</sub> O <sub>17</sub> S <sub>2</sub>
<b>Batch Molecular Weight:</b>	1157.4
<b>Physical Appearance:</b>	Dark green solid
<b>Solubility:</b>	DMSO to 10 mM DMF to 10 mM
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 86.5% purity at 770 nm
<b><sup>1</sup>H NMR:</b>	Consistent with structure
<b>Mass Spectrum:</b>	Consistent with structure
<b>UV Spectrum:</b>	Consistent with structure
<b>λ<sub>max</sub>:</b>	765 nm (PBS pH7.4)
<b>λ<sub>ex</sub>:</b>	768 nm (PBS pH7.4)
<b>λ<sub>em</sub>:</b>	788 nm (PBS pH7.4)

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Key information: FNIR-Tag, NHS ester is a near-infrared fluorescent dye; supplied with an NHS ester reactive group for the labeling of primary amines with a high degree of labeling (DOL). Application: Designed for in vivo imaging. Also suitable for flow cytometry. Properties and Photophysical Data: FNIR-Tag, NHS ester provides a higher degree of labeling (DOL) with less aggregation than a leading competitor product when used for antibody conjugation. FNIR-Tag, NHS ester- antibody conjugates exhibit reduced liver uptake in vivo compared with leading competitor conjugates. In addition, FNIR-Tag, NHS ester conjugates are significantly brighter... Please see product specific page on www.tocris.com for full description.

**Physical and Chemical Properties:**

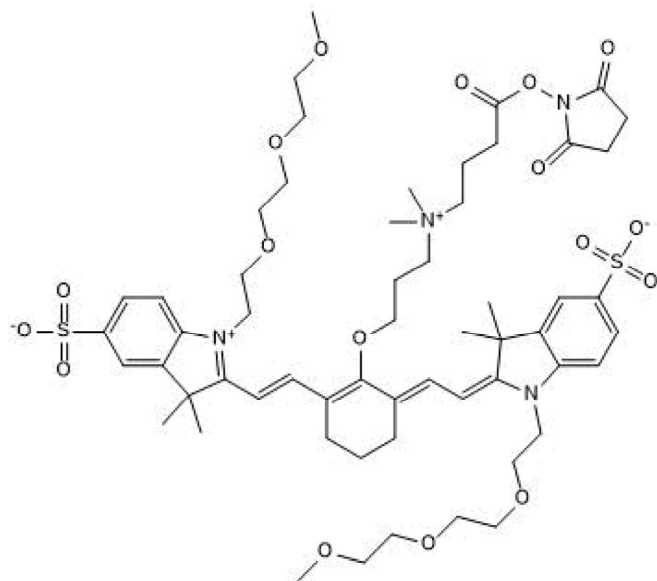
Batch Molecular Formula: C<sub>57</sub>H<sub>80</sub>N<sub>4</sub>O<sub>17</sub>S<sub>2</sub>

Batch Molecular Weight: 1157.4

Physical Appearance: Dark green solid

**Minimum Purity:** ≥70%

**Batch Molecular Structure:**



**Storage:** Store at -20°C. This product is packaged under an inert atmosphere.

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 10 mM

DMF to 10 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**Licensing Information:**

Sold under license from the National Institute of Health

**References:**

Luciano *et al* (2019) A nonaggregating heptamethine cyanine for building brighter labeled biomolecules. ACS Chem.Biol. **14** 934. PMID: 31030512.

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