

Product Name: Cyanine 5.5, SE

Catalog No.: 7431

Batch No.: 1

IUPAC Name: Tris(triethylammonium) 3-((2,5-dioxopyrrolidin-1-yl)oxy)-6-oxohexyl)-2-((1*E*,3*E*,5*Z*)-5-(3-ethyl-1,1-dimethyl-6,8-disulfonato-1,3-dihydro-2*H*-benzo[*e*]indol-2-ylidene)penta-1,3-dien-1-yl)-1,1-dimethyl-1*H*-benzo[*e*]indol-3-ium-6,8-disulfonate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₄₅H₄₄N₃O₁₆S₄.3C₆H₁₅NH

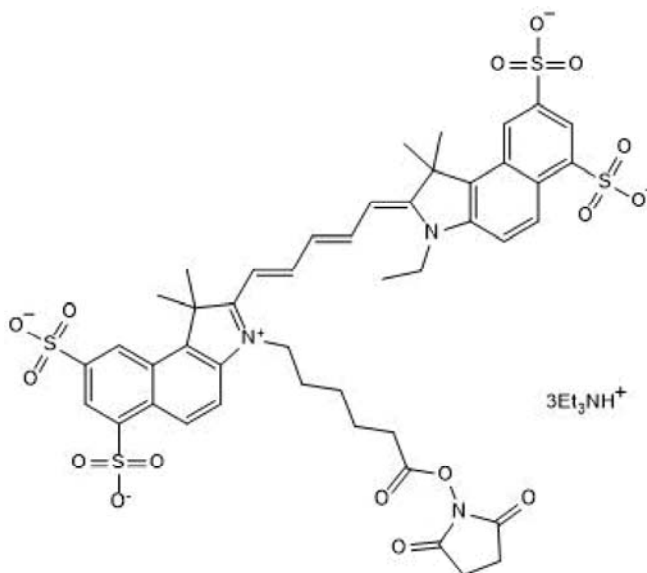
Batch Molecular Weight: 1317.7

Physical Appearance: Blue solid

Solubility: DMSO to 10 mg/ml

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 96.6% purity at 675 nm

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 674 nm (PBS pH 7.5)

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

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Description:

Cyanine 5.5, SE is a far red fluorescent dye for the labeling of amines. Cyanine 5.5, SE is ideal for labeling antibodies, peptides, glycoproteins, and amine-rich proteins. Cyanine 5.5, SE is also suitable for in vivo imaging. Excitation maximum ~675 nm; emission maximum ~694 nm.

Physical and Chemical Properties:

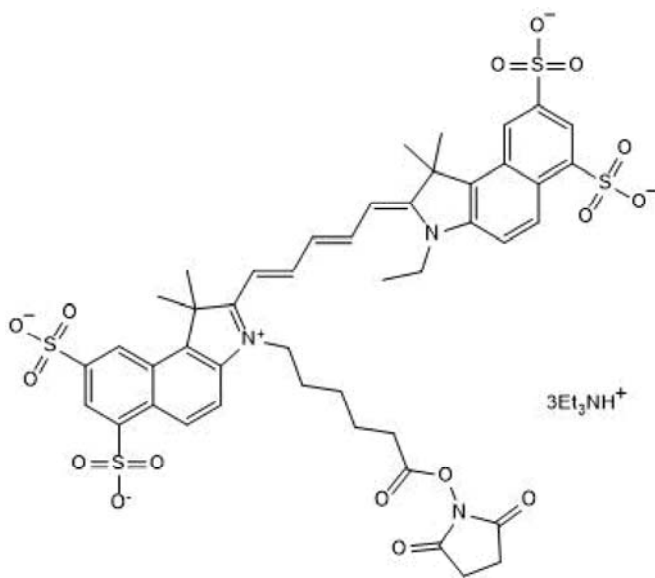
Batch Molecular Formula: C₄₅H₄₄N₃O₁₆S₄.3C₆H₁₅NH

Batch Molecular Weight: 1317.7

Physical Appearance: Blue solid

Minimum Purity: ≥90%

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 mg/ml

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. Our standard recommendations are:

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.

References:

Ma et al (2012) Ultrasmall sub-10 nm near-infrared fluorescent mesoporous silica nanoparticles. *J.Am.Chem.Soc.* **134** 13180. PMID: 22830608.

Kim et al (2006) Cell-permeable and biocompatible polymeric nanoparticles for apoptosis imaging. *J.Am.Chem.Soc.* **128** 3490. PMID: 16536501.

Weissleder et al (1999) *In vivo* imaging of tumors with protease-activated near-infrared fluorescent probes. *Nat.Biotechnol* **17** 375. PMID: 10207887.

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