

Product Name: Cyanine 5, SE

Catalog No.: 5436

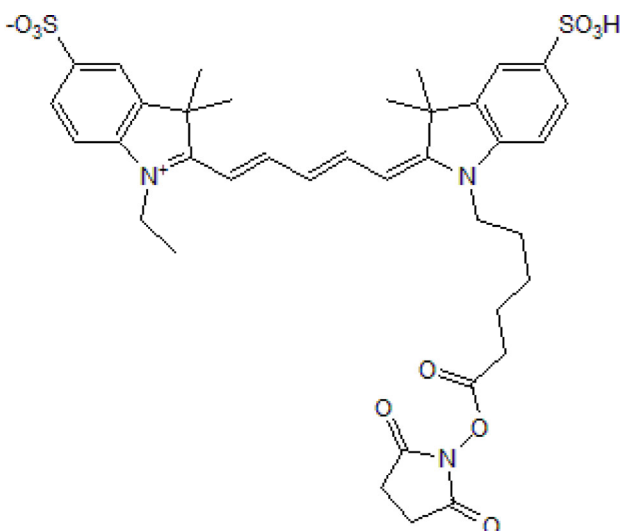
Batch No.: 6

CAS Number: 146368-14-1

IUPAC Name: 2-[5-[1-[6-[(2,5-Dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2*H*-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-3*H*-indolium, inner salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₃₇ H ₄₃ N ₃ O ₁₀ S ₂
Batch Molecular Weight:	753.88
Physical Appearance:	Dark purple solid
Solubility:	DMSO to 100 mM DMF to 100 mM
Storage:	Store at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 94.7% purity
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure
UV Spectrum:	Consistent with structure
λ_{max}:	645 nm (PBS buffer pH 7.4)
λ_{ex}:	647 nm (PBS buffer pH 7.4)
λ_{em}:	663 nm (PBS buffer pH 7.4)

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

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Description:

Key information: Cyanine 5, SE is a widely used red fluorescent dye supplied with an NHS ester reactive group for the labeling of primary amines. Application: Suitable for fluorescence microscopy, confocal microscopy and flow cytometry. Properties and Photophysical Data: Excitation and emission maxima (λ) are 649 nm and 666 nm, respectively; quantum yield = 0.2; extinction coefficient = 250,000 M⁻¹cm⁻¹; A280 correction factor = 0.04. For more information on how Cyanine 5, SE may be used, see our protocol: Conjugation Protocol for Amine Reactive Dyes. Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

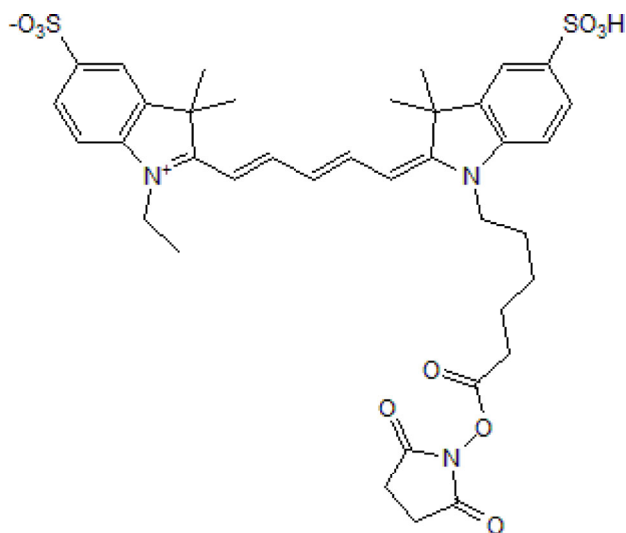
Batch Molecular Formula: C₃₇H₄₃N₃O₁₀S₂

Batch Molecular Weight: 753.88

Physical Appearance: Dark purple solid

Minimum Purity: ≥95%

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 100 mM

DMF to 100 mM

This compound is unstable in the presence of water. We recommend using anhydrous solvents. We recommend using an excess of reagent (greater than 2 molar eq.) in reactions.

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.

References:

Shin et al (2014) Live-cell imaging of Pol II promoter activity to monitor gene expression with RNA IMAGETag reporters. *Nucleic Acids Res.* **42** e90. PMID: 24753407.

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