

Product Name: sCy5DA

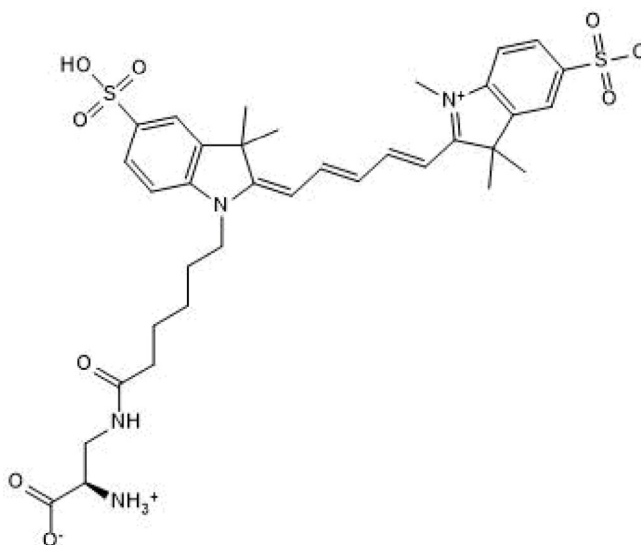
Catalog No.: 7834

Batch No.: 1

IUPAC Name: (R)-2-Ammonio-3-(6-((E)-3,3-dimethyl-5-sulfo-2-((2E,4E)-5-(1,3,3-trimethyl-5-sulfonato-3H-indol-1-ium-2-yl)penta-2,4-dien-1-ylidene)indolin-1-yl)hexanamido)propanoate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₃₅ H ₄₄ N ₄ O ₉ S ₂
Batch Molecular Weight:	728.88
Physical Appearance:	Purple solid
Solubility:	DMSO to 10 mM
Storage:	Store at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 96.7% purity at 645 nm
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure
UV Spectrum:	Consistent with structure
λ_{max}:	645 nm (PBS pH 7.4)
λ_{ex}:	646 nm (PBS pH 7.4)
λ_{em}:	665 nm (PBS pH 7.4)

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

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Description:

sCy5DA is a fluorescent D-amino acid. It is suitable for labeling peptidoglycans in live bacteria. It is efficiently incorporated into the peptidoglycans of a wide variety of bacteria, including gram-positive, gram-negative, and mycobacteria. Incorporates particularly well into gram-negative *C. crescentus*. sCy5DA labelled bacteria can be imaged by single molecule localization microscopy (SMLM; also referred to as PALM or STORM). Excitation/emission maxima = 646/665 nm.

Physical and Chemical Properties:

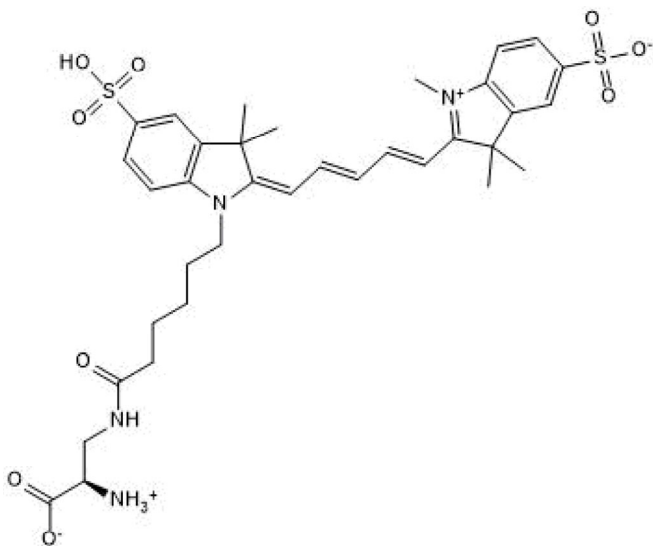
Batch Molecular Formula: C₃₅H₄₄N₄O₉S₂

Batch Molecular Weight: 728.88

Physical Appearance: Purple solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at -20°C

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

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:

Zhang et al (2022) Fluorescent D-amino acids for super-resolution microscopy of the bacterial cell wall. *ACS Chem.Biol.* **17** 2418. PMID: 35994360.

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