

Certificate of Analysis

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Product Name: Sulfo-NHS-LC-Biotin

Catalog No.: 7302

Batch No.: 3

CAS Number: 191671-46-2

IUPAC Name: Sodium 2,5-dioxo-1-((6-(5-((3a*S*,4*S*,6a*R*)-2-oxohexahydro-1*H*-thieno[3,4-*d*]imidazol-4-yl)pentanamido)hexanoyl)oxy)pyrrolidine-3-sulfonate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂₉N₄NaO₉S₂·1¼H₂O

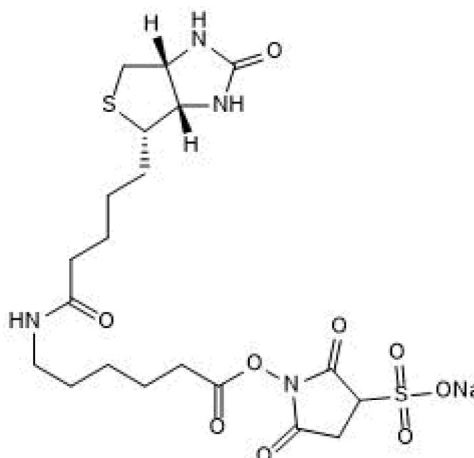
Batch Molecular Weight: 579.1

Physical Appearance: White solid

Solubility: water to 100 mM
DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	41.48	5.48	9.67
Found	40.95	5.35	9.41

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

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Description:

Sulfo-NHS-LC-Biotin is a water-soluble amine reactive biotinylation reagent used to attach biotin to primary amines. Commonly used to label proteins and antibodies. Does not penetrate membrane. Reactive in pH 7.0-9.0, solubility 10 mg/mL in water and DMF.

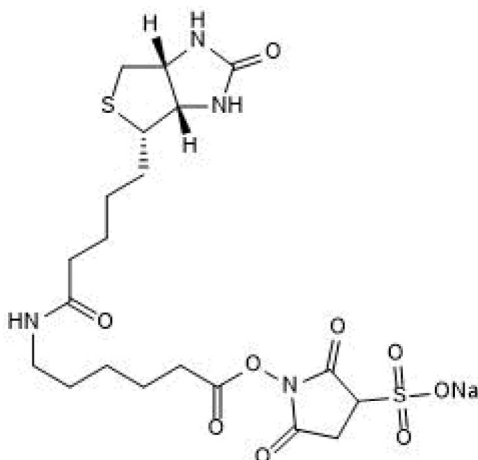
Physical and Chemical Properties:

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Physical Appearance: White solid

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 100 mM

DMSO to 100 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:

Karunakaran *et al* (2020) Butyrophilin-2A1 directly binds germline-encoded regions of the Vy9Vδ2 TCR and is essential for phosphoantigen sensing. *Immunity* **52** 487. PMID: 32155411.

Xu and Wegner (2020) Multifunctional streptavidin-biotin conjugates with precise stoichiometries. *Chem.Sci.* **11** 4422.

Takayama *et al* (2017) Long-term drug modification to the surface of mesenchymal stem cells by the avidin-biotin complex method. *Sci.Rep* **7** 16953. PMID: 29208980.

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