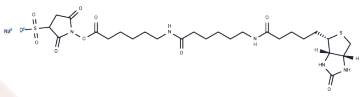
Data Sheet (Cat.No.T87478)

TargetMol

Sulfo-NHS-LC-LC-Biotin

Chemical Properties



CAS No. : 194041-66-2

Formula: C26H40N5NaO10S2

Molecular Weight: 669.74

Storage: Keep away from direct sunlight
Store at -20°C
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Sulfo-NHS-LC-LC-Biotin (Biotin-XX-SSE) is used for efficient and irreversible biotin labeling of antibodies, proteins and any other macromolecules containing a primary amine group (-NH2), thus permitting the use of streptavidin or affinity couplings for the detection and isolation of proteins; since the negatively charged reagent does not penetrate the cellular membrane, it is only labeled on the cellular surface for labeling.
Targets(IC50)	Others
In vitro	Biotinylation of exosomal proteins I. Solution preparation 1. Mother solution preparation: Dissolve Sulfo-NHS-LC-LC-Biotin in DMSO to prepare a 10-100mM mother solution. 2. Working solution preparation: Use water/PBS or other solvents to dilute the Sulfo-NHS-LC-LC-Biotin mother solution to the working solution concentration used in the experiment. Notes: 1. The mother solution needs to be stored at -20℃ or -80℃ to avoid repeated freezing and thawing. 2. Please dilute the mother solution to the required concentration according to your experimental purpose. II. Operation steps 1. Mix 200 μg of intact exosomes with 10 mM Sulfo-NHS-LC-LC-Biotin at room temperature for 30 minutes. 2. Four conditions were considered in this experiment: 1) Use excess Sulfo-NHS-LC-LC-Biotin to support complete saturation of exposed lysine residues and potential N-termini. 2) The sulfonate group present in Sulfo-NHS-LC-LC-Biotin prevents the reagent from penetrating the exosome membrane. 3) Sulfo-NHS-LC-LC-Biotin has a 30.5 angstrom spacer arm that improves biotinylation of proteins in their native conformation. 4) Amino acids labeled with Sulfo-NHS-LC-LC-Biotin will add a mass of 452 Da. After incubation, excess Sulfo-NHS-LC-LC-Biotin can be removed using a 10 KDa MWCO filter. [2] The above information is based on published literature. Experimental procedures

In vitro	should be appropriately modified to meet specific research demands.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4931 mL	7.4656 mL	14.9312 mL
5 mM	0.2986 mL	1.4931 mL	2.9862 mL
10 mM	0.1493 mL	0.7466 mL	1.4931 mL
50 mM	0.0299 mL	0.1493 mL	0.2986 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Diaz G, et al. Changes in the Membrane-Associated Proteins of Exosomes Released from Human Macrophages after Mycobacterium tuberculosis Infection. Sci Rep. 2016 Nov 29;6:37975.
Gabant G, et al. Assessment of solvent residues accessibility using three Sulfo-NHS-biotin reagents in parallel: application to footprint changes of a methyltransferase upon binding its substrate. J Mass Spectrom. 2008 Mar;43 (3):360-70.
Ilia Fishbein, et al. Post-Deployment Modifications of Stent with Endothelial Cells. CARDIOVASCULAR AND PULMONARY DISEASES, 24, SUPPLEMENT 1, S68, MAY 01, 2016.