



# SZABO SCANDIC

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### SZABO-SCANDIC HandelsgmbH

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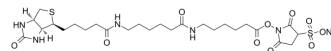
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## Sulfo-NHS-LC-LC-Biotin

<b>Cat. No.:</b>	HY-D1635
<b>CAS No.:</b>	194041-66-2
<b>Molecular Formula:</b>	C <sub>26</sub> H <sub>40</sub> N <sub>5</sub> NaO <sub>10</sub> S <sub>2</sub>
<b>Molecular Weight:</b>	669.74
<b>Target:</b>	Fluorescent Dye
<b>Pathway:</b>	Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Sulfo-NHS-LC-LC-Biotin (Biotin-XX-SSE), a biotin reagent, is used to label the proteins exposed to the external leaflet of intact exosomes and contains a larger spacer arm between the biotin and amine reactive linker. The size of this linker helps to overcome steric hindrance and increases labeling efficiency at the crowded exosome surface <sup>[1][2]</sup> .
<b>In Vitro</b>	<p>Biotinylation of exosome proteins: Two hundred micrograms of intact exosomes were mixed with 10 mM Sulfo-NHS-LC-LC-Biotin at room temperature for 30 min. Four conditions were taken into account during this experiment: (a) an excess of Sulfo-NHS-LC-LC-Biotin was used to favor a complete saturation of exposed lysine residues and potential N-terminus, (b) the presence of the sulfonate group in Sulfo-NHS-LC-LC-Biotin blocks the reagent from penetrating the exosomal membrane, (c) Sulfo-NHS-LC-LC-Biotin has an spacer arm of 30.5 angstroms which improves the biotinylation of proteins in their natural conformation, and (d) amino acids labeled with Sulfo-NHS-LC-LC-Biotin will have an increase in mass of 452 Da. After incubation, the excess of Sulfo-NHS-LC-LC-Biotin was removed using a 10 KDa MWCO filtration device<sup>[2]</sup>.</p> <p>Rat aortic endothelial cells (RAEC) were surface modified in suspension with 1 mM Sulfo-NHS-LC-LC-biotin for 10 min, followed by pelleting and resuspension in PBS<sup>[3]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### REFERENCES

- [1]. 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.
- [2]. 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.
- [3]. Ilia Fishbein, et al. Post-Deployment Modifications of Stent with Endothelial Cells. *CARDIOVASCULAR AND PULMONARY DISEASES*, 24, SUPPLEMENT 1, S68, MAY 01, 2016.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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