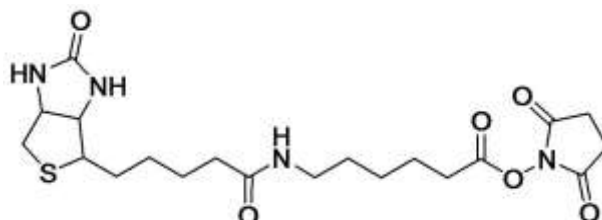


NHS-LC-Biotin Protocol and Product Information Sheet

Product Category:	Biotinylation Reagents
Catalog Number(s):	b2102-100mg , b2102-1gm , b2102-custom
Product Name:	NHS-LC-Biotin
Alternative Name(s):	Succinimidyl 6-(biotinamido)hexanoate; (+)-Biotinamidocaproate N-hydroxysuccinimidyl ester
CAS Number:	72040-63-2
Chemical Formula:	C ₂₀ H ₃₀ N ₄ O ₆ S
Molecular Weight:	454.54
Spacer Length:	22.4 Å
Storage:	Upon receipt store at -20°C (shipped at ambient temperature). Protect from moisture (i.e. humidity); blanket under desiccated inert gas.



General NHS-LC-Biotin Protein Biotinylation Protocol

1. Allow vial of NHS-LC-Biotin to fully equilibrate to ambient temperature before opening to prevent condensation inside the vial (NHS-LC-Biotin is moisture-sensitive).
2. Allow vial of NHS-LC-Biotin to equilibrate to ambient temperature before opening.
3. Dissolve protein at a concentration of 10 mg/mL in 100 mM sodium phosphate, 150 mM NaCl, pH 7.2-7.5 or other suitable amine-free buffer.
4. Immediately before use, create a 40 mg/mL NHS-LC-Biotin stock solution in anhydrous DMF ([cr8106-25ml](#)) or DMSO ([cr8105-25ml](#)).
5. Add sufficient NHS-LC-Biotin stock solution to the protein solution to obtain 10-20 fold molar excess of biotinylation reagent over protein.
Note: Dilute protein solutions (i.e. 1-2 mg/mL) may require increased molar excess of NHS-LC-Biotin (i.e. ≥ 20 fold) to yield similar biotinylation of a more concentrated protein solution.
6. Allow biotinylation reaction to proceed for 30-60 minutes at room temperature or ≥ 2 hours at 4°C.
7. Desalt biotinylated protein through dialysis or gel filtration with a resin, such as Sephadex® G-25 ([g4109](#)) or equivalent.

References:

Hermanson, G.T. 1996. Bioconjugate Techniques. Academic Press, San Diego, CA, USA.