

Note that this data sheet is not lot-specific. Please consult the vial label and the certificate of analysis for information on specific lots.

BioTeZ Biotinylation Kit

Reagents for 5 / 10 Biotinylations of 1-10 mg antibody/1-5 mg other protein

Catalogue Number: BTBIOK-05

Package Size: 1 kit for 5 labels

Catalogue Number: BTBIOK-10

Package Size: 1 kit for 10 labels

1. Description

The kit contains the reagents for the Biotin labeling of antibodies and other proteins. Biotinylated molecules bind very well to Streptavidin or Streptavidin surfaces. It includes all necessary reagents and clean-up columns for the purification of the biotinylated products. The coupling reaction takes place at primary amino groups on the target molecule using a N-Hydroxy-succinimide (NHS) ester-activated biotin, which forms stable amide bonds. Proteins generally have a sufficient number of amino groups for coupling, both N-terminal and lysine residues. In this kit, Sulfo-NHS-LC Biotin (sulfosuccinimidyl-6-[biotin-amido] hexanoate) is used, that contains a spacer group with 6 carbon atoms and a length of 22,4 Å to increase the distance between the target molecule and the biotin groups.

In the kit are 5/10 portions of Sulfo-NHS-LC Biotin reagent. One portion is used for an antibody amount of 1-10 mg or a protein amount of 1-5 mg.

2. Application

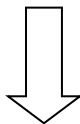
The kit can be applied for the production of biotinylated conjugates of antibodies and other proteins. The labeling portions are designed for a standard coupling of 1 mg antibody. For the labeling of other proteins, the amount to be used must be calculated accordingly.

3. Components

Sulfo-NHS-LC Biotin, biotinylation buffer for the coupling reaction, clean-up column and purification buffer concentrate (10x) for size-exclusion chromatography. All components are included for 5/10 separate coupling reactions.

4. Procedure scheme

Step 1 (Preparation)



a) Prepare the antibody/protein before coupling:

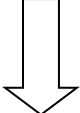
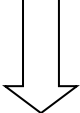
Remove all other substances with primary amines e.g. by ultrafiltration, dialysis or with a clean-up column, adjust to a high antibody concentration (5-20mg/mL)

Recommendation: Use the Biotinylation Buffer

b) Equilibrate an unopened original vial of Sulfo-NHS-LC-Biotin to room temperature

c) Calculate the required amount of Sulfo-NHS-LC-Biotin (for stoichiometric excess see instruction manual)

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<p>Step 2 (Labeling)</p> 	<p>Solute the portion of Sulfo-NHS-LC-Biotin in Biotinylation buffer and pipet the calculated volume immediately to the prepared antibody</p> <p>Note: The rest of the dissolved portion should be discarded!</p> <p>Incubation: 1 hour at room temperature / overnight at 2-8°C is also possible</p>
<p>Step 3 (Purification)</p> 	<p>Purification of biotinylated antibody by using clean-up column from the kit (for removing of excess biotinylation reagent and transfer into a suitable buffer).</p> <p>For sample volumes of 0.5 to 1.0 mL</p>
<p>Step 4 (Characterization)</p>	<p>Determination of protein concentration by UV-spectrometry</p>

5. Storage

Sulfo-NHS-LC Biotin reagent has to be stored in foil bag with dessicant at – 20°C. Sulfo-NHS-LC Biotin is moisture-sensitive. All other components of the BioTeZ Biotinylation Kit store at 2-8 °C.