

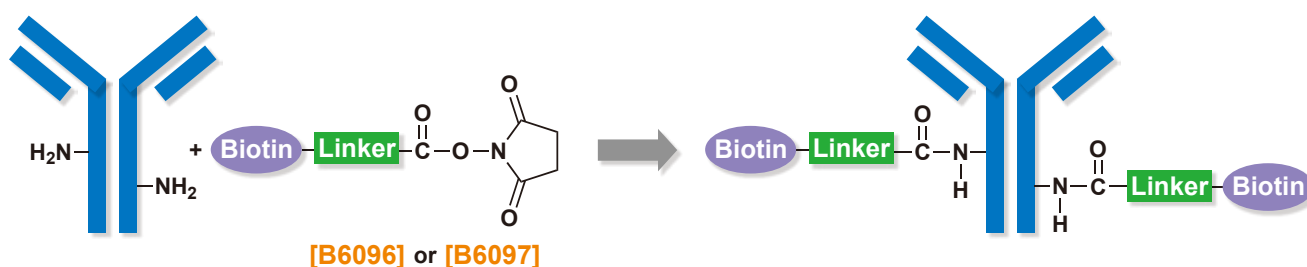
Pre-Weighed Biotinylation Reagents

Biotin-LC-LC-NHS (2mg×5)

1set [B6096]

Biotin-PEG₂-NHS (2mg×5)

1set [B6097]



Advantages

B6096 and **B6097** contain both a linker and an *N*-hydroxysuccinimidyl ester moiety, and easily react with amino group (-NH₂) of proteins. Target samples can be biotinylated without weighing of the products during the preparation. **B6096** and **B6097** include 5 reagent vials, each containing 2 mg of respective reagent. The pre-aliquoted packaging prevents decline of the reagent reactivity over time by eliminating the need for repetitive opening of the vial.

Applications

Preparation :

Use of a 10 mM biotinylation solution is recommended. In order to efficiently biotinylate a sample, biotinylation solution should be used at a 15-fold molar excess over the amount of amine-containing protein. Make sure to calculate the 10 mM biotinylation solution amount (see example below).

Calculate : A μL of 10 mM biotinylation solution for biotinylation 2 mg IgG (150,000 M.W.)

$2 [\text{mg IgG}] \times 10^{-3} [\text{g/mg}] \times 1/150,000 [\text{mol/g}] \times 15 [\text{fold}]$

$= A [\mu\text{L of 10 mM biotinylation solution}] \times 10^{-6} [\text{L}/\mu\text{L}] \times 10 [\text{mmol/L}] \times 10^{-3} [\text{mol/mmol}]$

$A = 20 [\mu\text{L of 10 mM biotinylation solution}]$

Direction for Use :

1. Bring each product to room temperature.
2. Dissolve 2 mg of Biotin-LC-LC-NHS [B6096] in 350 μL of DMSO or DMF or 2 mg of Biotin-PEG₂-NHS [B6097] in 400 μL of PBS to prepare a 10 mM biotinylation solution.
3. Dissolve the sample (1-10 mg/mL) in an appropriate buffer such as PBS. Do not use buffers including amines (such as Tris).
4. Add A μL of 10 mM biotinylation solution to the sample solution and incubate the mixed solution for 30 min at room temperature.
5. Remove unreacted and hydrolyzed reagent using desalting column or dialysis methods.

Example for use of B6096

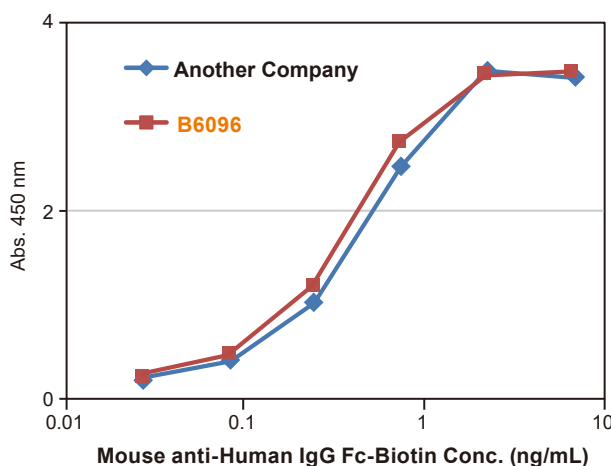
The following is an example of the process used for the biotinylation of Mouse Anti-Human IgG Antibody [M2977] using Biotin-LC-LC-NHS [B6096].

Direction for Use :

1. Bring 2 mg of B6096 to room temperature and dissolve it in 350 μ L of DMSO to prepare 10 mM Biotin-LC-LC-NHS solution.
2. Add 10 μ L of 10 mM Biotin-LC-LC-NHS solution to 500 μ L of M2977 (Conc.: 1 mg/mL Vol.: 0.5 mg).
3. Incubate the mixed solution at room temperature for 30 minutes .
4. Remove unreacted and hydrolyzed reagent by dialysis methods.

The biotinylation results of Mouse IgG Antibody [M2977] carried out through the above method using B6096 were compared to a similar antibody biotinylated using a product from another company.

Coat: Human IgG Fc 0.1 μ g/well
1st reaction: Mouse anti-Human IgG Fc-Biotin
2nd reaction: Streptavidin-HRP



The titer of the antibody biotinylated using B6096 was greater than that of the same antibody biotinylated using the product of another company.

Related Products

DMSO	25g / 500g [D0798]
DMF	25mL / 100mL / 500mL [D0722]
Sulfo-SMCC Sodium Salt	20mg / 100mg [S0883]
Biotin-PEG ₂ -NHS	25mg / 100mg [S0955]
Biotin-LC-LC-NHS	25mg / 100mg [S0956]
HABA	5g / 25g [H0586]
BSA Maleimide Conjugate (1mg×3)	1set [B5944]
Horseradish Peroxidase Maleimide Conjugate (0.5mg×3)	1set [H1621]
Streptavidin Maleimide Conjugate	0.5mg/vial [T3531]
Streptavidin from <i>Streptomyces avidinii</i>	1mg/vial [S0951]
Streptavidin FITC Conjugate	0.1mg/vial [S0966]
Streptavidin HRP Conjugate	0.1mg/vial [S0972]
Streptavidin DTBTA-Eu ³⁺ Conjugate	0.1mg/vial [S0993]

For further information please refer to our website at www.TCIchemicals.com.

TCI biotinylation

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