

Biotin Conjugation Kit

v. 230201

Catalog number	C08002-10 / C08002-100 / C08002-1000																		
Package	10 µg / 100 µg / 1 mg																		
Description	<p>Biotin is a widely used and powerful tool for research due to the specific and high affinity with streptavidin/avidin. Antibody or protein conjugated with several biotin molecules can also amplify the detection signal through streptavidin-conjugated molecule such as streptavidin-HRP, streptavidin-FITC, etc. Biotinylated antibody or protein can be used in various applications including ELISA, WB, IHC, IFA and FACS. Croyez Biotin Labeling Kit is designed for biotinylation of a small quantity (10 µg-1 mg) of antibody or protein. It provides a rapid and easy process with high efficiency to conjugate biotin to antibody or protein.</p>																		
Component	<table border="1"> <thead> <tr> <th></th> <th>C08002-10</th> <th>C08002-100</th> <th>C08002-1000</th> </tr> </thead> <tbody> <tr> <td>Biotin</td> <td>1 vial</td> <td>1 vial</td> <td>1 vial</td> </tr> <tr> <td>10X Modifier</td> <td>1 vial</td> <td>1 vial</td> <td>1 vial</td> </tr> <tr> <td>10X Quencher</td> <td>1 vial</td> <td>1 vial</td> <td>1 vial</td> </tr> </tbody> </table>		C08002-10	C08002-100	C08002-1000	Biotin	1 vial	1 vial	1 vial	10X Modifier	1 vial	1 vial	1 vial	10X Quencher	1 vial	1 vial	1 vial		
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Storage	Store at -20°C. Equilibrate kit to room temperature before use.																		
Note	<p>Common non-buffering salts (e.g. sodium chloride) have no effect on conjugation efficiency. Avoid buffer component that contains primary amine (e.g. amino acid or ethanolamine) and thiols (e.g. mercaptoethanol or DTT). Components that have no effect or little effect on labeling reaction:</p> <ul style="list-style-type: none"> • up to 50 mM Tris • up to 50 mM HEPES • up to 10% glycerol • up to 0.02% sodium azide 																		
Manual	<p>Antibody concentrations of 1-4 mg/mL generally give optimal results. Recommended amount and volume of antibody for optimal results.</p> <table border="1"> <thead> <tr> <th>Kit size</th> <th>Antibody amount</th> <th>Reaction volume</th> </tr> </thead> <tbody> <tr> <td>10 µg</td> <td>10-20 µg</td> <td>4-20 µL</td> </tr> <tr> <td>100 µg</td> <td>100-200 µg</td> <td>40-200 µL</td> </tr> <tr> <td>1 mg</td> <td>1-2 mg</td> <td>400-2000 µL</td> </tr> </tbody> </table>			Kit size	Antibody amount	Reaction volume	10 µg	10-20 µg	4-20 µL	100 µg	100-200 µg	40-200 µL	1 mg	1-2 mg	400-2000 µL				
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Biotin conjugation protocol

1. Dissolve antibody in PBS or other buffers that do not contain amine, Tris or glycerol. Use **10X Modifier** (e.g. Add 1 μL of 10X Modifier for 9 μL of antibody) or dialysis against PBS if pH value of used buffer is out of 7 to 8.
2. Spin down and equilibrate the vial of Biotin at room temperature before opening the cap.
3. Make sure all buffers are well dissolved before using. If not, please vortex the vial to make salts dissolved.
4. Remove the cap of the vial of **Biotin** and pipette antibody into the vial. Mix gently by pipetting several times.
5. Cover the cap and incubate in the dark at room temperature for 3 hours.
6. After incubating, add **10X Quencher** (e.g. 1 μL of 10X Quencher for 9 μL of antibody-biotin mixture) and mix gently by pipetting. The conjugates can be used after 30 minutes.

Manual

* For protein conjugation, the amount of protein can be calculated by formula below:

Quantities of protein = quantities of kit (e.g. 10 μg) x (M.W. of target protein)/(150 (M.W. of IgG))

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