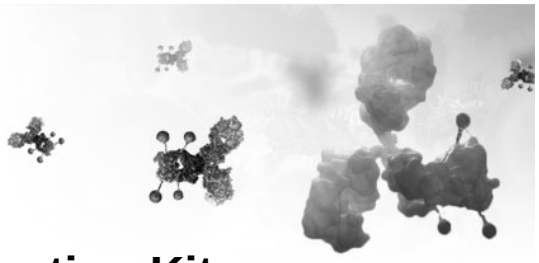

Magic Fast™ Biotin Conjugation Kit

CD4003-1 mg

(User Reference Guide)

Important Notes

The information provided in this document and the methods included in this package are for information purposes only. Creative Diagnostics provides no warranty of performance or suitability for the purpose described here in. The performance of labeling using this kit may be affected by antibodies. Sample data are provided for illustration and example purposes only. Information about the chemicals and reagents used in the kit are provided as necessary.
There agents provided are for research use only. Not for use in diagnostic procedure.

Product Overview

Creative Diagnostics has designed the Magic Fast™ Biotin conjugation kit to enable the direct labeling of any proteins, antibodies, antibody fragments, peptides or other biomolecules with available RNH_2 to accelerate life science fundamental research and the development of the diagnostic kit. Our technology can be used to label both small and large quantities of biomolecules with ease. The researcher simply pipettes their materials into the vial and incubates for 2 hours.

Performance

- Material selection: Any proteins, antibodies, antibody fragments, peptides or other biomolecules with available RNH_2.
- Reactivity: RNH_2.
- Linkage stability: Activation of proprietary reagents within the offered solution results in directional covalent bonding of Biotin to the biomolecules.
- Easy-to-go: Instant reaction; the whole process is about 2 hours.
- Consistence: Good reproducibility from batch to batch.

Kit Components

Cat. No	Activated Biotin	Biotin Diluent	Conjugation Buffer	Desalting Column
CD4003-1 mg	1 vial	500 µl	30 ml	1 Column

Recommended Application Notes

- Conjugation Buffer (µl) / Material (µl): 250 µl / 500 µl
- Material (mg) / Activated Biotin (µl): 1 mg / 250 µl

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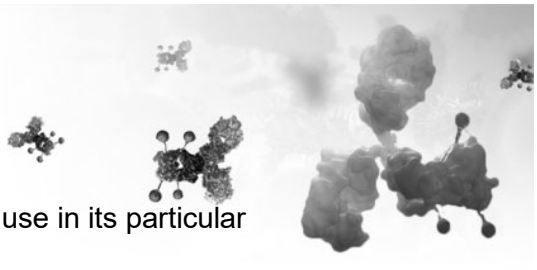

Each laboratory should determine an optimum amount for use in its particular application.

Buffer Considerations

Buffer Components & Conditions	
Amine free buffer (e.g HEPES, MES, MOPS and phosphate)	Yes
Borate buffer	Yes
Chelating agents (e.g. EDTA)	Yes
Glycerol	No
Glycine	No
Material supplied in ascites fluid, serum, hybridoma or tissue culture media	No
Merthiolate	No
Non-buffering salts (e.g. sodium chloride)	Yes
Other biomolecules	Primary amines required
Peptides	Yes
pH	6.5-8.5
Proclin	No
Proteins	Yes
Purified antibody	Yes
Sodium Azide	No
Sugars	Yes
Thiomersal / Thimerosal	No
Tris	No

Storage

- Activated Biotin: Stable at 2-8°C for six months.
- Biotin Diluent: Stable at room temperature for six months.
- Conjugation Buffer: Stable at 2-8°C for six months.
- Desalting Column: Stable at 2-8°C for six months.

Attention

- In the process of step 2 reaction, step 3-5 can be completed synchronously.
- Prepare the antibodies or proteins that need to be conjugated in advance, preferably at a concentration above 2 mg/ml.
- Take 250 µl biotin diluent and add it into the activated biotin tube for immediate use.
- Balance the desalting column to room temperature before use, and do not reuse.
- All reagents should be used right after they were ready.

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Assay Procedure

1. Take 500 μl of the antibody or protein that needs to be conjugated and add it into the 1.5 ml centrifuge tube.
2. Simultaneously add 250 μl conjugation buffer and 250 μl dissolved activated biotin. The reaction should be slow at room temperature for 2 hours on a rotating suspension apparatus.
3. Centrifuge the desalting column: 1000 g, 1 minute.
4. Remove the caps at the top and bottom of the desalting column and put it into a suitable centrifuge tube (15ml centrifuge tube). Centrifugation: 1000 g, 2 min, remove the resin preservation solution.
5. Add 5 times the column volume of conjugation buffer (25 ml) to balance the desalting column, and centrifuge to remove the conjugation buffer after each balance: 1000 g, 2 minutes
6. Transfer the desalting column to a new centrifuge tube, slowly transfer the conjugated product of step 2 to the center of the resin, centrifuge: 1000 g, 8 minutes.
7. The liquid in the centrifuge tube is collected as the conjugated product.

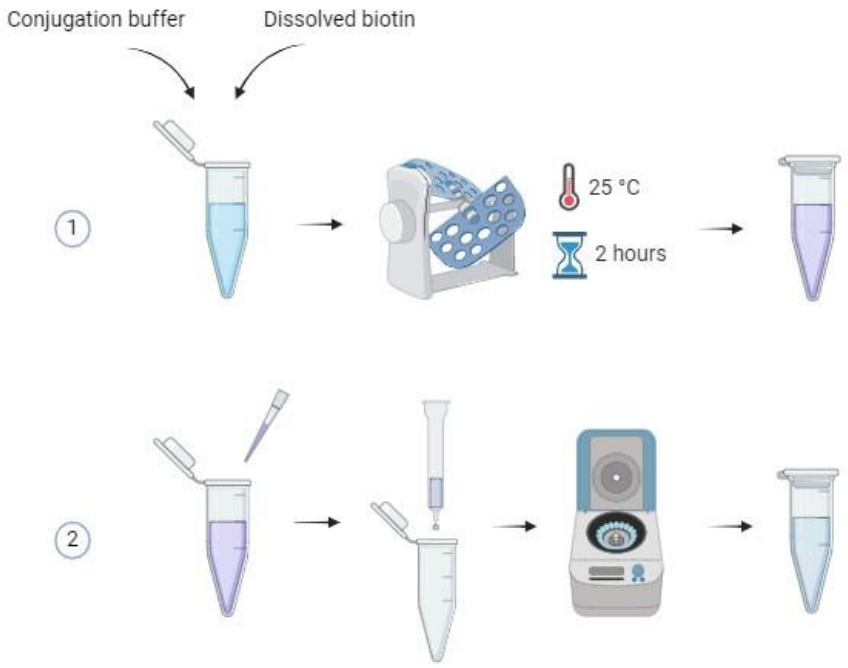

Figure 1. Assay Procedure of Magic Fast™ Biotin Conjugation Kit

Note: The kit above is designed for antibodies and proteins.

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