

# Biotin Conjugation Kit, 1 mg

Cat No: BLOK1960

## Description

Biotin-Avidin-System (BAS) is a very widely used biological reaction amplification system. The interaction between biotin and avidin is currently known to be the strongest non-covalent interaction. The high-affinity and firm binding between biotin and avidin and the multi-stage amplification effect make BAS immunolabeling and related tracers The analysis is more sensitive. Biotin-labeled antibodies are currently widely used immunochemical reagents that combine specificity, sensitivity, qualitative and localization in immunopathology, cytochemistry, pathology and clinical immunity. Under alkaline conditions, the activated biotin binds to the free amino groups of the protein to produce labeled biotinylated protein.

The fluorescein in this kit uses high-quality imported biotin (Biotin). The principle of biotin-labeled antibody is to use -NHS group on biotin and free -NH<sub>2</sub> on the antibody to chemically form Biotin-antibody conjugate. There are 86 lysine residues in IgG molecule, and generally can bind 15-20 at most, and IgG molecule can bind 2-8 molecules of Biotin.

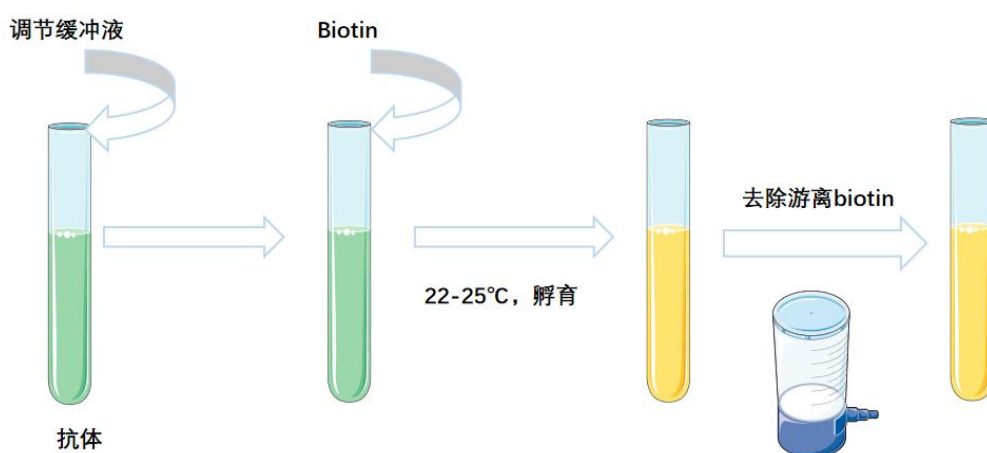
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## PRODUCT INFORMATION

Biotin	1 vial (Protect from light)
Buffer	50ul
DMSO	150ul
Purification column	2 vial
Collection tube	2 vial



## Steps

### 1. 抗体准备

- 1.1. 建议抗体浓度在 1-2mg/ml 之间。
- 1.2. 抗体中不要含有 BSA 或其它蛋白质成分。
- 1.3. 抗体缓冲液中不要含有氨基的盐 (如: Tris, NaN<sub>3</sub> 等), pH 在 6.5-8.5 为宜。

### 2. 抗体标记

- 2.1. 取出 Biotin 离心数秒, 将管中 Biotin 干粉甩至管底;

- 2.2 . 管中加入 50ul DMSO 用移液枪反复吹打或 vortex 混匀至 Biotin 完全溶解 ;
- 2.3 . 抗体中加入适量调整缓冲液 ( 每 100ul 抗体中加入 10ul 调整缓冲液 ) ;
- 2.4 . 将溶解后的 Biotin 加入抗体中 ( 每 100ug 抗体中加入 4.0ul Biotin ) , 用移液枪反复吹打或 vortex 混匀。
- 2.5 . 将抗体-Biotin 混合物置水平摇床或旋转混匀仪 , 在摇动状态下室温避光 ( 反应管可包裹锡箔纸 ) 反应 1h。

注 : 如果需要较高 Biotin 偶联比 , 可适当延长抗体和 Biotin 偶联时间。

### 3. 游离 Biotin 去除

- 3.1 . 取出纯化柱 , 将纯化柱 3000rpm 离心 2min。
- 3.2 . 暂时保留收集管中的缓冲液。
- 3.3 . 将纯化柱移至新的收集管上 , 吸取抗体-Biotin 偶联物置纯化柱中填料的表面。如果样品体积小于 50ul , 应先用 3.2 保留的缓冲液将液体量补足 50ul。上样体积最大不要超过 100ul。
- 3.4 . 待样品渗入填料后 , 3000rpm 离心 2min。
- 3.5 . 将抗体-Biotin 标记物 4°C 保存待用 , 终产品可 4°C 可保存 1 年。

## NOTES

1. Store the kit at 2-8°C, do not freeze.
2. The components of the kit may be upside down during transportation, causing liquid or dry powder reagents to stick to the tube wall or bottle cap. Please centrifuge before use to make

the liquid or dry powder reagent attached to the tube wall or bottle cap settle to the bottom of the tube.

3. Biotin needs to be prepared for immediate use, and the dissolved Biotin cannot be stored for a long time.

4. The buffer in the purification column contains the toxic component sodium azide ( $\text{NaN}_3$ ).

Avoid contact with skin, eyes and mucous membranes when using it.

5. DMSO is slightly toxic, permeable to human skin and irritating to the eyes. Avoid contact with skin, eyes and mucous membranes when using it.

6. The dialysis, concentration and concentration determination of the antibody before labeling will all cause the loss of the amount of antibody. Therefore, when preparing the antibody before labeling, consider the most appropriate amount of antibody according to the specific situation.

## Contact Us

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