

## AP Conjugation Kit

**Cat No: BIOK1971**

**Size: 200 ug**

### PRODUCT DESCRIPTION

Alkaline Phosphatase (AP) has a molecular weight of 140,000Da. Its main application in molecular biology and protein research is to remove 5'-phosphate groups from DNA or as a reporter system for immunoassays (such as ELISA). In immunoassay tests, enzymes usually bind to specific primary or secondary antibodies, and their activity is detected with chromogenic (or luminescent) substrates.

This kit utilizes the free primary amino group (-NH<sub>2</sub>) on the antibody and AP to covalently couple the antibody molecule to the AP by using the directional docking coupling technology, which can help the experimenter to quickly realize the coupling of the AP and the antibody.

- 1 The kit has complete components and simple operation. As long as the operation steps are followed, high-quality AP conjugated antibody can be obtained;
- 2 The AP configured by this kit is high purity and high activity enzyme, with higher catalytic luminescence / color rendering efficiency;
- 3 The reagent adopts directional coupling technology, and neither AP enzyme nor antibody will self connect, ensuring the specificity and homogeneity of the conjugate;

### THE KIT HAS PROVIDED MATERIALS

Component Name	规格
Activated AP Fluid	500ug
Labeling buffer	30ml
Marker preservation solution	2ml
30KMWCO ultrafiltration tube	1 支

Storage method: it can be stored at 2-8 °C for more than 6 months. Do not freeze it.

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## KIT OPERATION PROCESS

### 1. Buffer Exchange of Antibodies

Transfer the antibody to be labeled into a 30kmcwco ultrafiltration tube and ultrafilter with the labeling buffer for 3-5 times (12000rpm for 5min each time). It is appropriate that the liquid volume in the tube core should not exceed 1 / 4 of the original volume each time

### 2. Activated AP coupled with antibody

1) Mix the antibody to be labeled with the activated AP solution at a mass ratio of 1:2.5 (each mg of modified antibody corresponds to 2.5 mg of activated AP solution, 50ug of activated AP can label 20ug of antibody), react at room temperature for 4 hours in the dark;

2) Distribute the labeled antibodies, add appropriate preservation solution, and store at -20° C for later use.

## Precautions

1 the components of the kit may be reversed during transportation, which may cause the liquid or dry powder reagent to stick to the tube wall or bottle cap. Please centrifuge before use to deposit the liquid or dry powder reagent attached to the tube wall or bottle cap to the bottom of the tube.

2 The activated AP lyophilized powder in this kit needs to be stored at low temperature in the dark, and the labeling process should ensure that it is protected from light as much as possible;

3 Use this kit to label antibodies with high specificity and a purity of not less than 90%. It is best to use monoclonal antibodies, and the solution environment does not contain free amino groups, preferably PBS solution; NaN<sub>3</sub> and BSA should be removed from the antibody before labeling. , operations such as dialysis, concentration and concentration determination of the antibody will cause the loss of the amount of antibody, so when preparing the antibody before labeling, it is necessary to consider the optimum amount of antibody according to the specific situation;

4 The ultrafiltration tube in this kit is specially treated, which can effectively avoid enzyme inactivation and protein adsorption loss. The ultrafiltration tube in the market may affect the labeling efficiency.

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