



Product Information Sheet

Alkaline Phosphatase Conjugated Rat IgG SABC Kit

Catalog No. SA1055

Size 1 kit

Product Type

Ready to use (No dilution needed)

Storage

4°C for one year. Avoid freezing.

Tested Applications

Immunohistochemical analysis of paraffin-embedded sections, IHC(P);
Immunohistochemical analysis of frozen-embedded sections, IHC(F);
Immunocytochemistry, IC.

Introduction

SABC (StreptAvidin-Biotin Complex) is specially designed for displaying the distribution of antigens in tissues and cells in immunochemistry and other immunodetection analyses. Streptavidin is a 47,000 dalton protein purified from the bacterium *Streptomyces avidinii*. Streptavidin has extraordinarily strong affinity to biotin molecules. The dissociation constant (K_d) of the biotin-streptavidin complex is on the order of $\sim 10^{-15}$ mol/L, a million times higher than the typical affinity between antigens and their antibodies. Streptavidin has very low non-specific binding to tissues and cells, due to its nearly neutral isoelectric point (IP=6.0~6.5). Therefore, immunohistochemical analyses based on streptavidin-biotin complex has extremely low background. Furthermore, this kit has high sensitivity because each complex it generates has a large number of alkaline phosphatase and streptavidin molecules. In brief, SABC offers high specificity, low background and ease-of-use.

Kit Components

1. Normal rabbit serum blocking reagent: 12 ml, for blocking tissue sections.
2. Biotinylated Secondary Antibody (Rabbit Anti-rat IgG): 12ml (10 μ g/ml). Affinity purified antibody, labeled with "long-arm" biotin (Biotinamido hexanoic acid N-hydroxysuccinimide ester, CAS# 72040-63-2).
3. SABC-AP (Alkaline Phosphatase conjugated streptavidin): 12ml (20 μ g/ml). Manufactured by A proprietary method, the complex is very stable and offers superior amplification of the antigen signals.
4. BCIP/NBT Chromogenic agent (20 \times): 1ml.
5. Water soluble sealing reagent: 12 ml.
6. Neutral nuclear fast red: 12 ml.

Material Required But Not Provided

1. APES or POLY-L-LYSINE.
2. 0.01M TBS (pH 7.2~7.4): 9g sodium chloride, 1.2g Tris, and 450 μ l acetic acid in 1000ml of distilled water.
3. 0.01M TBS (pH 9.0~9.5): 9g sodium chloride and 1.2g Tris in 1000ml of distilled water.
4. 0.01M Citrate Buffer: 3g sodium citrate dihydrate ($C_6H_5Na_3O_7 \cdot 2H_2O$) and 0.4g citric acid monohydrate ($C_6H_8O_7 \cdot H_2O$) in 1000ml of distilled water.

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5. 0.1% trypsinase or the
compound digest solution
(Catalog number: AR0022).

Note

Rat IgG refers to the animal origin of the primary antibody, not the origin of the specimen. This kit must be used on primary antibodies from rat.