



## Product Information Sheet

### Alkaline Phosphatase Conjugated Human IgG SABC Kit

**Catalog No.** SA1054

**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 the block of tissue sections.
2. Biotinylated Secondary Antibody (Rabbit Anti-human IgG): 12ml (10 $\mu$ g/ml). Affinity purified antibody, labeled with "long-arm" biotin (Biotinamidohexanoic acid N-hydroxysuccinimide ester, CAS# 72040-63-2).
3. SABC-AP (Alkaline Phosphatase conjugated streptavidin): 12ml (20 $\mu$ 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 $\mu$ 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.
5. 0.1% trypsinase or the compound digest solution (Catalog number:

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### **Note**

Human 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 human.