



## Product Information Sheet

### Peroxidase Conjugated Human IgG SABC Kit

**Catalog No.** SA2004

**Size** 1 kit

**Product Type**

Concentrated (Need dilution)

**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.

**Recommended Dilution Factors**

IHC(P): 1:50-200

IHC(F): 1:50-200

IC: 1:50-200

Optimal dilutions should be determined by end users.

**Introduction**

SABC (StreptAvidin-Biotin Complex) is specially designed for displaying the distribution of antigens in tissues and cells in immunohistochemistry 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 peroxidase and streptavidin molecules. In brief, SABC offers high specificity, low background and ease-of-use.

**Kit Components**

1. Normal rabbit serum blocking reagent: 10 $\times$ , 10ml, for the block of tissue sections.
2. Biotinylated Secondary Antibody (Rabbit Anti-human IgG): 100~200 $\times$ , 1ml (2mg/ml). Affinity purified antibody, labeled with "long-arm" biotin (Biotinamido hexanoic acid N-hydroxysuccinimide ester, CAS# 72040-63-2).
3. SABC-POD (Peroxidase conjugated streptavidin): 100~200 $\times$ , 1ml (2mg/ml). Manufactured by A proprietary method, the complex is very stable and offers superior amplification of the antigen signals.
4. Three drop bottles (For dilution use).

**Material Required But Not Provided**

1. APES or POLY-L-LYSINE.
2. 0.02M PBS (pH 7.2~7.6): 8.5g sodium chloride, 2.8g anhydrous  $\text{Na}_2\text{HPO}_4$  and 0.4g anhydrous  $\text{NaH}_2\text{PO}_4$  in 1000ml of distilled water. (The weight should be adjusted accordingly if hydrous phosphates are used.)
3. 0.01 M Citrate Buffer: 3g sodium citrate dihydrate ( $\text{C}_6\text{H}_5\text{Na}_3\text{O}_7 \cdot 2\text{H}_2\text{O}$ ) and 0.4g citric acid monohydrate ( $\text{C}_6\text{H}_8\text{O}_7 \cdot \text{H}_2\text{O}$ ) in 1000ml of distilled water.
4. DAB Chromogenic Kit (Catalog number: AR1022 or AR1025).
5. 0.1% trypsinase or the compound digest solution (Catalog number: AR0022).

To reorder contact us at:  
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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.