



Product Information Sheet

Peroxidase Conjugated Rat IgG SABC Kit

Catalog No. SA2005

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 immunochemistry and other immunodetection analyses. Streptavidin is a 53,000 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×, 10ml, for the block of tissue sections.
2. Biotinylated Secondary Antibody (Rabbit Anti-rat IgG): 100~200×, 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×, 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 Na_2HPO_4 and 0.4g anhydrous NaH_2PO_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:

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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.