

HistoMark[®]

HistoMark Biotin Streptavidin Kits

HistoMark Biotin Streptavidin Kits provide rapid, precise localization of antigens in cells and tissues. KPL offers two kits for use with a variety of primary antibodies:

- ◆ Biotin Streptavidin-HRP Systems
- ◆ Biotin Streptavidin-AP Systems

KPL provides reagents optimized for sensitivity and convenience. They facilitate double or triple labeling experiments, as detection can be performed simultaneously with primary antibodies of different animal species.

Contents of HistoMark Biotin Streptavidin Kits

Reagents are supplied ready-to-use in convenient 50 mL dropper bottles with sufficient quantity to process 500 slides. Kits are stored at 2 - 8° C.

Each kit contains:

Biotinylated Antibody

With a long chain spacer arm that minimizes steric interaction with streptavidin and maximize the streptavidin-biotin binding reaction.

Enzyme-labeled Streptavidin

Designed for optimal binding to biotinylated antibody.

Serum Block

Minimizes nonspecific binding of the secondary antibody.

KPL also offers HistoMark Staining Systems optimized for sensitivity and convenience. A variety of colors are available for both HRP and AP enzymes. They are ideal for multiple labeling experiments.

Images above:

Left: Streptavidin Phosphatase and HistoMark RED demonstrate glial fibrillary acidic protein (GFAP) in brain.

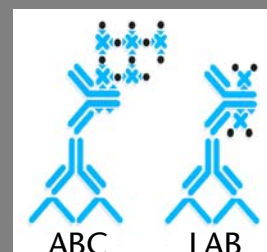
Middle: Streptavidin phosphatase and HistoMark BLUE demonstrates prostate-specific antigen in prostate.

Right: Streptavidin Peroxidase and HistoMark ORANGE demonstrate epithelial membrane antigen in liver.



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Avidin-Biotin Complex (ABC) vs. Labeled Avidin Biotin (LAB)



The technique utilizing unlabeled primary antibody, biotinylated link secondary reagent and pre-formed avidin-biotinylated horseradish peroxidase complex is known as the ABC method. (1) It has been reported that immunohisto-logic reactions using peroxidase coupled to streptavidin display greater sensitivity than ABC procedures. (2,3) In this method, the LAB method, the enzyme is covalently linked directly to the streptavidin molecule can be labeled with multiple enzymes. The resulting complex is relatively small, enabling many streptavidins to bind to the biotinylated secondary antibody. The biotin is also more accessible due to the use of a long carbon spacer arm which reduces potential steric hindrance.

(1) Hsu, S-M, Raine, L. and Fanger, H. (1981) *Am J Clin Pathol* 75:734.

(2) Shi, Z-R, Itkowitz, S.H. and Kim, Y.S. (1988) *J Histochem Cytochem* 36:317.

(3) Elias, J.M., Margiotta, M. and Gaborc, D. (1989) *Am J Clin Pathol* 92:62

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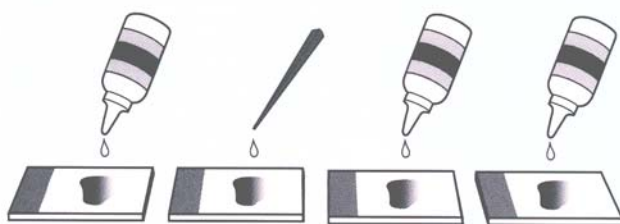
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PROCEDURE: HistoMark Biotin Streptavidin

Prepare paraffin-embedded sections, frozen sections or cytology preparations using standard methods. If necessary, block endogenous enzyme activity (KPL recommends Universal Block to block endogenous peroxidase and phosphatase activity).



1. Apply Serum Block.
2. Apply diluted primary antibody.
3. Apply Biotinylated Antibody. Incubate for 30 minutes.
4. Apply Enzyme-Labeled Streptavidin-Reagent. Incubate for 30 minutes. Slide is now ready to stain.

Ordering Information

Catalog No.	Description	Size
<i>Biotin-Streptavidin - Phosphatase Systems</i>		
71-00-39	Mouse Primary Antibody	500 tests
71-00-40	Rabbit Primary Antibody	500 tests
71-00-41	Rat Primary Antibody	500 tests

<i>Biotin-Streptavidin - Peroxidase Systems</i>		
71-00-18	Mouse Primary Antibody	500 tests
71-00-19	Rabbit Primary Antibody	500 tests
71-00-20	Rat Primary Antibody	500 tests
71-00-26	Goat Primary Antibody	500 tests

<i>Components Available Separately</i>		
71-00-29	Goat Anti-Mouse IgG (H+L)	50 mL
71-00-30	Goat Anti-Rabbit IgG (H+L), HSA	50 mL
71-00-31	Goat Anti-Rat IgG (H+L), MSA	50 mL
71-00-37	Rabbit Anti-Goat IgG (H+L)	50 mL
71-0038	HRP-Streptavidin	50 mL
71-00-45	AP-Streptavidin	50 mL
71-00-27	Normal Goat Serum	50 mL
71-00-28	Normal Rabbit Serum	50 mL

HSA = Human Serum Adsorbed
MSA = Mouse Serum Adsorbed

To order or for more information on KPL's full line of protein and nucleic acid detection products, contact us at 800.638.3167 / 301.948.7755, FAX 301.948.0169 or visit us at www.kpl.com.

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