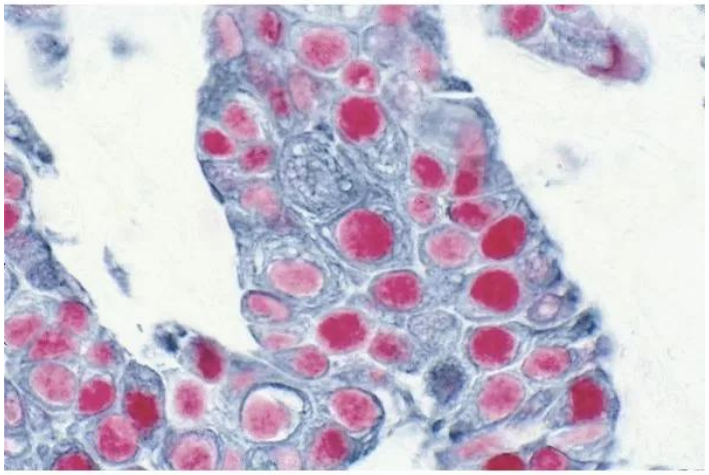
www.vectorlabs.com
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VECTASTAIN ABC-AP KIT, ALKALINE PHOSPHATASE (STANDARD)

SKU: AK-5000



DESCRIPTION

The VECTASTAIN ABC Reagent can be used to detect any biotinylated molecule. This is the original avidin/biotin ABC complex formation without a biotinylated secondary antibody.

Features:

• Alkaline phosphatase enzyme detection system
• Avidin/biotin technology
• High sensitivity/low background
• Preferred for tissues that have high endogenous peroxidase activity
• Offers additional substrate choices
• Used as a second label in multiple antigen labeling applicationsProduct review on Biocompare.com

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SPECIFICATIONS

Detection Enzyme	Alkaline Phosphatase
Format	Concentrate
Isolation Technology	ABC (Avidin/Biotin) Systems
Unit Size	1 Kit
Applications	Immunohistochemistry / Immunocytochemistry, In situ hybridization, Blotting Applications, Elispot, ELISAs
Target Species	No antibody included
Platform	ABC (Avidin/Biotin) Systems
Source Species	No antibody included

KIT COMPONENTS

- 2 ml Reagent A (Avidin DH)
- 2 ml Reagent B (Biotinylated AP)

TECHNICAL INFORMATION

With more than 50,000 citations to its credit, the VECTASTAIN ABC system is widely popular. This modular system is based on the versatile avidin-biotin interaction, and along with our selection of secondary antibodies, can accommodate a wide array of primary antibody and tissue species. Our ABC kits are economical and a staple product in any immunohistochemistry (IHC) and immunocytochemistry (ICC) laboratory.

The sensitivity of the VECTASTAIN ABC-AP system is comparable to that of the peroxidase VECTASTAIN Elite® ABC system, but may be preferred for tissues that have high endogenous peroxidase activity. The system also offers additional substrate color choices.

VECTASTAIN ABC-AP Kit

Reagent A and B form the ABC-AP complex when mixed.

Each kit is sufficient to stain approximately 1,000–2,000 sections or fifty 100 cm^2 blots.

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The Avidin-Biotin Complex Method

The VECTASTAIN ABC systems are extremely sensitive due to the form and number of active enzyme molecules associated with the preformed Avidin/Biotinylated enzyme complex. This ABC complex takes advantage of two important properties of avidin: 1) an extraordinarily high affinity for biotin (over one million times higher than antibody for most antigens), and 2) four biotin-binding sites. These properties allow macromolecular complexes (ABCs) to be formed by mixing Avidin DH (Reagent A) with its paired biotinylated enzyme (Reagent B) prior to use. The ABC reagent, once formed, remains stable for many hours after formation and can be used for several days after preparation.

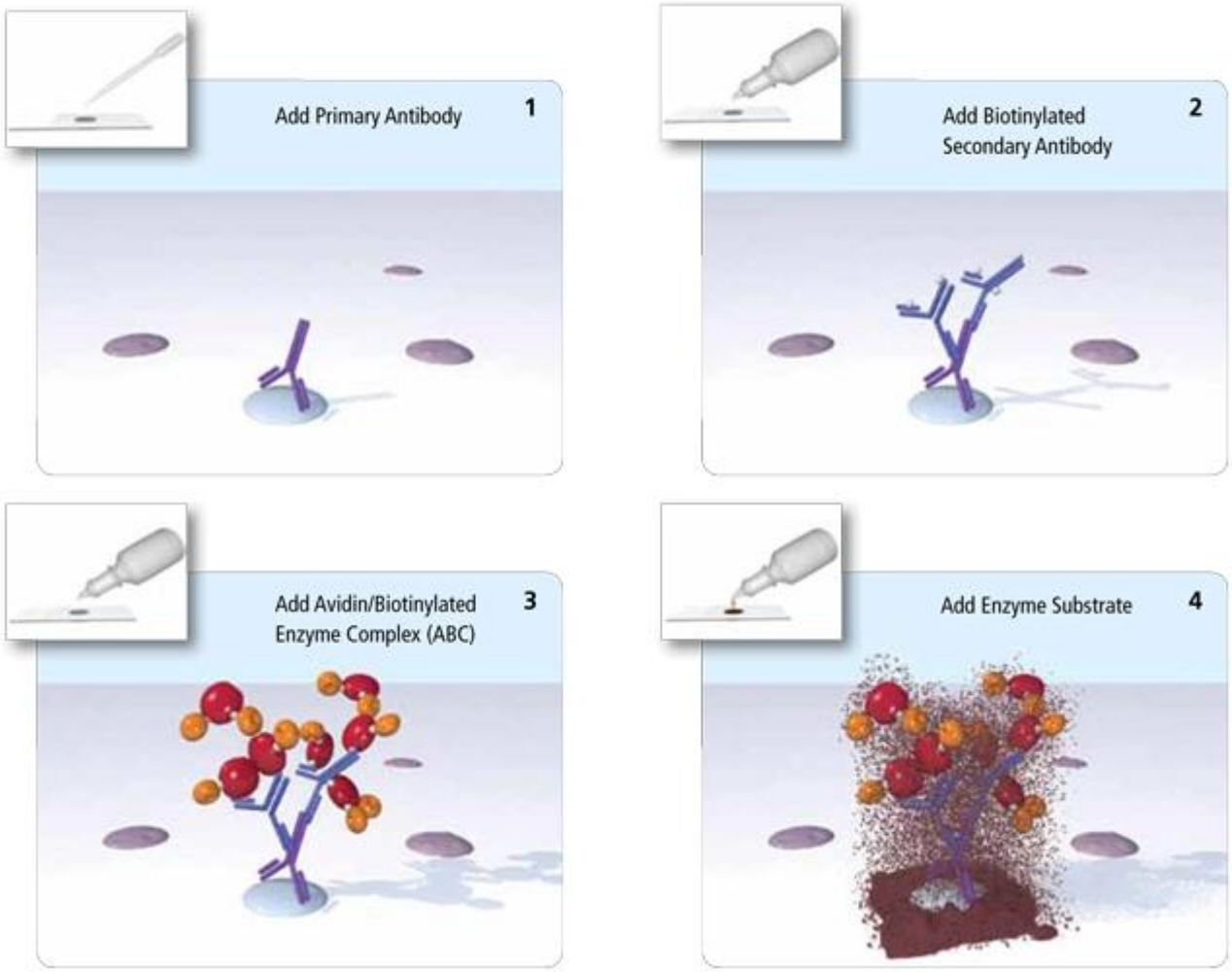
You can use the VECTASTAIN ABC Reagent to detect virtually any molecule that is biotinylated. Use it to visualize biotinylated antibodies, lectins, neuronal tracers, nucleic acids, and ligands in applications such as:

- Tissue staining
- Multiple labeling (Multiplex IHC)
- Western blotting
- Southern and northern blotting
- *In situ* hybridization detection (ISH)
- Enzyme immunoassays (ELISA)
- Neuronal tracing

All applications benefit from the high sensitivity, low background, reproducibility, and economy of the VECTASTAIN ABC system.

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Using the ABC System:



Choosing a VECTASTAIN ABC Kit

1) Choose an enzyme system.

VECTASTAIN ABC Kits are available with a choice of two different enzyme systems:

- Horseradish peroxidase, HRP (ABC, Elite ABC, RTU or Kits)
- Alkaline Phosphatase, AP (ABC-AP)

2) Choose a biotinylated secondary antibody.

To detect a biotinylated target, use the ABC Reagent contained in the Standard Kit, followed by an appropriate substrate.

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To detect an unlabeled primary antibody, use a biotinylated secondary antibody that binds to the primary antibody species chosen, the ABC Reagent, and an appropriate substrate. For example, to detect a primary antibody made in rabbit, the appropriate choice is a VECTASTAIN ABC Kit designated “Rabbit IgG”.

For additional versatility and convenience, Vector Laboratories offers secondary antibody products that recognize more than one species of primary antibody:

- **Universal Biotinylated Anti-Mouse/Rabbit IgG secondary antibody** (Cat. No. BA-1400) — a cocktail of biotinylated anti-mouse IgG and anti-rabbit IgG, designed for use with both rabbit and mouse primary antibodies. Do not use this antibody to stain tissues from rodents or rabbits due to its reactivity with the IgG present in the tissues of these species.
- **Universal Pan-Specific Anti- Mouse/Rabbit/Goat secondary antibody** (Cat. No. BA-1300) — included in our VECTASTAIN Universal Kits, this icocktail of biotinylated anti-mouse IgG, anti-rabbit IgG, and anti-goat IgG recognizes mouse, rabbit, and goat primary antibodies. Do not use this secondary antibody to stain rat, mouse, or other rodent, rabbit, goat, bovine, or sheep tissue due to potential reactivity with endogenous IgG.

3) Choose a convenient format.

Choose among prediluted, stabilized formats for convenience and ease of use. See kits designated R.T.U. or Ready-To-Use.

4) Consider species cross-reactivity.

When choosing the best detection system for your application, consider not only the species of the primary antibody but also the species of the tissue under examination. If the two species are closely related (e.g., rat and mouse), the biotinylated secondary antibody may cross-react with endogenous IgG in the tissue section, leading to background staining.The following three options minimize background staining in these instances:

- Biotinylate the primary antibody and detect with a Standard VECTASTAIN Elite ABC Kit, PK-6100 (only includes the avidin-biotin complex, or ABC reagent).
- Use a biotinylated secondary antibody adsorbed to remove cross-reacting antibodies of closely related species (e.g., biotinylated anti-mouse IgG, rat adsorbed, Cat. No. BA-2001).
- Use the M.O.M.® Immunodetection System to use mouse primary antibodies on mouse tissue.

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5) Select a substrate.

After choosing the VECTASTAIN ABC Kit for your application, select a substrate that matches the enzyme system of the kit.

CITATIONS

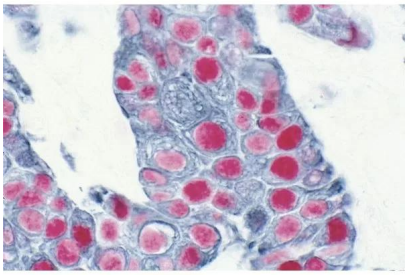
CITATIONS

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DOCUMENTS

- Avidin/Biotin Troubleshooting Guide
- User Guide
- Safety Data Sheet
- Download CoA
- Datasheet

GALLERY IMAGES





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