PRODUCT DATA SHEET

AP – Streptavidin Conjugate

Product Number: 43-4322  Lot Number: WE324853B

Quantity: 3mg/2ml

Form: Lyophilized Streptavidin-AP is supplied as 2ml of liquid at 1.5mg/ml in a proprietary enzyme-conjugate stabilizing buffer containing 0.1% sodium azide as a preservative. In the preparation of this product, Zymed uses highly purified streptavidin and alkaline phosphatase.

Background: Streptavidin (MW=66 kDa) binds specifically with biotin (244 Da). It is derived from the bacterium Streptomyces avidinii and bears a remarkable similarity to chicken egg-white avidin both in three-dimensional structure and its ability to bind biotin with extremely high affinity (Kd=10^-15M). It is a tetrameric protein capable of binding up to 4 biotin molecules. Unlike avidin, Streptavidin is non-glycosylated and is essentially neutral in charge, whereas avidin (pI=10.5) is basic at neutral pH. Because of this, streptavidin has considerably less non-specific binding resulting in less background. It has replaced avidin as the reagent of choice for most applications where protein interactions may cause background.

Usage: Zymed’s Streptavidin-AP is recommended for use in detection systems utilizing biotinylated antibodies, and other biotinylated molecules. This product can be used for a variety of common applications including immunohistochemistry, Western blotting, In Situ hybridization, and ELISA. For an excellent, comprehensive review of properties and applications of streptavidin/biotin amplification methods, see Bayer and Wilchek’s Avidin-Biotin Technology, Methods in Enzymology, Volume 184, Academic Press (1990).

Working concentrations for specific applications should be determined by the investigator. Appropriate dilutions will be affected by several factors, including primary and secondary antibody affinity, antigen concentration and length of incubations. We recommend the following ranges as starting points.

- **Immunohistochemistry**: 1:100 to 1:300
- **Western blot (chromogenic)**: 1:500 to 1:1,250
- **Western blot (chemiluminescence)**: 1:1,000 to 1:2,500
- **ELISA**: 1:1,000 to 1:2,500

Procedures: A good source of information about general immunoassay procedures is Ed Harlow & David Lane’s Antibodies, A Laboratory Manual, Cold Spring Harbor Laboratory (1988). Also see Bayer and Wilchek (referenced above).

Storage and Stability: Store at 2-8°C.
PRODUCT DATA SHEET

Selected Product References:
References cite Zymed’s standard products.

Immunohistochemistry & Immunocytochemistry

Western blot

ELISA

In Situ Hybridization

Related Products:

<table>
<thead>
<tr>
<th>Product</th>
<th>Cat. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goat anti-Human IgG (H+L)-Biotin (ZyMAX™ Grade)</td>
<td>81-7140</td>
</tr>
<tr>
<td>pNPP Single Solution (chromogen for ELISA)</td>
<td>00-2212 (100 ml)</td>
</tr>
<tr>
<td>BCIP/NBT Liquid Reagent Kit (chromogen for IHC, blotting)</td>
<td>00-2209 (blot)</td>
</tr>
</tbody>
</table>

Remarks: For research use only. Not for human or animal therapeutic or diagnostic use.

Trademarks:
Zymed® is a trademark of Zymed Laboratories, Inc.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Product documentation, specifications and/or accompanying package inserts (“Documentation”). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than Buyer. Any mode or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such mode or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER’S EXCLUSIVE REMEDY FOR NON CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON CONFORMING PRODUCT(S) AT SELLER’S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE; (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to humans or animals.