

## PRODUCT INFORMATION

### Avidin

- Catalog Number:** BA-104-5
- Description:** Avidin (egg white) - Horseradish Peroxidase
- Lot Number:**
- Protein Concentration:** 5 mg pure Avidin-Horseradish Peroxidase / 5 ml of Buffer.  
**(Based on OD 280)**
- Purification Procedure:** Affinity Chromatography performed after conjugation.
- Specificity:** One mole of Avidin (MW 67,000) binds 4 moles of Biotin (MW 244.3). The Biotin-Avidin complex has a binding constant of  $10^{15}$ .
- Buffer:** 0.01M Phosphate - 0.15M NaCl, pH 7.2-7.4.
- Chemical Used for Conjugation:** Horseradish Peroxidase.
- Storage:** Store liquid material frozen in aliquots in amber vials or covered with foil. Avoid freeze thaw cycles. Clarify by centrifugation. No preservatives have been added. Sodium azide will inactivate the enzyme, peroxidase.
- Stability:** The liquid material is stable for at least one year when stored frozen in aliquots
- Caution:** Refer to the enclosed MSDS for information regarding lectins. The aluminum seals have sharp edges and the vial itself may have cracks which can cause lacerations. Use caution when opening the vial.
- References:**
1. Hsa, S.M., et.al., *Use Of Avidin-Biotin-Peroxidase Complex (ABC) In Immuno Peroxidase Techniques: A Comparison Between ABC And Unlabeled Antibody (PAP) Procedures.*, (1981), J. Histochem. Cytochem., **29** : 577.  
Guesdon, J.L. et.al., *The Use of Avidin-Biotin Interaction In Immuno Enzymatic Techniques*, (1979), J.Histochem.Cytochem., **27** : 1131.

**EY LABORATORIES, INC.**  
107 North Amphlett Blvd.  
San Mateo, CA 94401

Tel: 650-342-3296  
Fax: 650-342-2648  
Orders: 1-800-821-0044  
(Outside CA only)

**EY LABORATORIES, INC.**  
107 North Amphlett Blvd.  
San Mateo, CA 94401

Tel: 650-342-3296  
Fax: 650-342-2648  
Orders: 1-800-821-0044  
(Outside CA only)

Sample Only

**MATERIAL SAFETY DATA SHEET**

Effective Date: March 31, 2006

Revision 5

Page 1 of 2

**PRODUCT IDENTIFICATION**

Name: Purified proteins and enzymes labeled with D-Biotin.  
 Catalog: BAP-01, BA-1102 to BA-9000, BAF-001 to BAF-2354, BAL-1104 to BAL-4701,  
 Number(s): BA-01 to BA-013, BA-108, BA-109, BA-111, BA-118, BA-119, BA-120, BA-121,  
 BAT-2100 to BAT-2701.

Formula: Complex polypeptides labeled with D-Biotin  
 Synonyms: Protein A, Lectins, Secondary and Monoclonal Antibodies, Horseradish  
 Peroxidase, Alkaline Phosphatase, Lactoperoxidase, Ferritin, and Urease labeled  
 with D-Biotin.

NOTE: D-Biotin is also known as vitamin H.

**EMERGENCY INFORMATION**

EY Laboratories, Inc.  
 107 North Amphlett Blvd.  
 San Mateo, CA 94401

**EMERGENCY PHONE:  
 650-342-3296**

**HAZARDOUS COMPONENTS**

Specific protein (s) as listed on the vial label. Solutions are at a concentration generally greater than 0.5mg protein/ ml. Powders are >>95% pure protein unless otherwise indicated on the vial label. Biological activity of these labeled proteins will vary. Vitamin H is an essential vitamin, required in very low amounts. The concentration of bound biotin is less than 10% of the protein amount (w/w). All solutions contain less than 0.05% sodium azide as a preservative.

**HEALTH HAZARD INFORMATION**

EXPOSURE LIMITS: None established. The toxicological properties of these products have not been thoroughly investigated. Care should be taken when handling any of these materials.

EFFECTS OF OVEREXPOSURE: May cause localized eye, skin, or mucous membrane irritation. Some sensitive individuals may develop a chronic allergic reaction with exposure. The known effects are due to the protein.

ROUTES OF EXPOSURE: Inhalation of powders and skin contact with liquids are the primary routes of exposure. Care should be taken to avoid the formation of aerosols when handling any of the solutions.

**PHYSICAL CHARACTERISTICS**

APPEARANCE: Powders are white to brown. Solutions will be clear to dark brown or red.

SOLUBILITY: Powders are completely soluble in many biological buffers and water.

All liquids are completely miscible in water and biological buffers.

**FIRE AND EXPLOSION HAZARDS**

EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING NOTE:

NOTE:

Not considered to be a fire hazard.

Water spray or CO<sub>2</sub>.

None required.

Most solutions contain less than 0.05% sodium azide as a preservative. Azide may react with lead and copper plumbing to form explosive metal azides. Flush with copious amounts of water when disposing material in the sink.

**REACTIVITY DATA**

STABILITY:

Stable. Decomposition products are not known to be hazardous.

HAZARDOUS POLYMERIZATION:

Will NOT occur.

INCOMPATIBILITY:

None known. (Lead and copper may react with sodium azide).

**SPILL / LEAK PROCEDURES**

MATERIAL RELEASE /  
 SPILL:

Avoid contact with powder or liquid. Clean up spill with a paper towel soaked in household bleach. Do not allow solutions to dry on environmental surfaces. Wash affected area with detergent after the area has been treated with bleach.

WASTE DISPOSAL:

Incinerate, autoclave, or dispose of paper waste in accordance with all Local, State, and Federal regulations. Due to the small quantities of material involved these products are generally not considered to be environmental hazards. All of these proteins are fully biodegradable.

**EMERGENCY FIRST AID PROCEDURES**

May be harmful if swallowed, inhaled, or allowed to absorb through the skin. Wash contacted area with water for 15 minutes. If inhaled remove to fresh air. Report exposure to the appropriate safety official. Consult a physician if irritation occurs or if there is any indication of an allergic response, such as watering eyes, sneezing, or difficulty breathing.

**SPECIAL HANDLING PRECAUTIONS**

VENTILATION:

No special ventilation is required but it is recommended to handle these reagents in a fume hood when possible.

EYE PROTECTION:

Not required under most circumstances but recommended as a safety precaution.

RESPIRATORY

PROTECTION:

Recommended as a safety precaution, specifically when working with powders. An approved respirator may be required for those individuals already known to be sensitive to these materials.

PROTECTIVE GLOVES:

Required when handling any of these materials.

**SPECIAL PRECAUTIONS**

This material is for research and experimental application only. It is not intended for food, drug, household, agricultural, or cosmetic use. All materials should be handled only by technically qualified individuals experienced with working with potentially hazardous chemicals. The above information is correct to the best of our knowledge. The user should make independent decisions regarding completeness of the information, based on all sources available. EY Laboratories, Inc. shall not be held liable for any damage resulting from handling or contact with the above product.

**EY LABORATORIES, INC.**

107 North Amphlett Blvd.  
 San Mateo, CA 94401

Tel: 650-342-3296  
 Fax: 650-342-2648  
 Orders: 1-800-821-0044  
 (Outside CA only)

**EY LABORATORIES, INC.**

107 North Amphlett Blvd.  
 San Mateo, CA 94401

Tel: 650-342-3296  
 Fax: 650-342-2648  
 Orders: 1-800-821-0044  
 (Outside CA only)

Sample Only