

# Avidin Individual Gel Kit

(Cat. No.: AK-1001-2)

## Introduction

The Avidin Gel Kit (AK-series), pre-packed in column with separate elution buffers and instruction booklet. Avidin (Egg white) covalently linked to agarose beads (exclusion limit MW 5-15 million).

## Kit Composition

Immobilized Avidin  
Avidin (Egg White) Gel, 2mL

### 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  $10^{15}$ .

### Buffers

0.01M Phosphate - 0.15M NaCl, pH 7.2-7.4. Contains 0.05% sodium azide as a preservative.

### Protein Concentration

Avidin 2mg purified Avidin per ml settled beads

### Bead size

50-250 microns.

### Spacer

None.

### Linkage Between Spacer & Bead

Imidoester

## Storage

Store refrigerated at 5-8°C in Buffer. DO NOT FREEZE.

## Stability

The material is stable for several years when stored refrigerated with 0.05% sodium azide added as a preservative.

## Regeneration

Wash with 10 times the gel volume with 1.4M NaCl in water. Re-equilibrate with 50 times the gel volume with Buffer. A final concentration of 0.05% sodium azide should be added as a preservative.

## Caution

Refer to the enclosed MSDS for information. The aluminum seals have sharp edges and the vial itself may have cracks which can cause lacerations. Use caution when opening the vial.

## Remarks

The binding of Avidin and Biotin is unaffected over a wide range of pH (2-13) and chaotropic solvents such as guanidium chloride up to 3M. Various Biotin derivatives show binding at pH 11 and may be eluted at pH 2-4.

## Reorder Information

The immobilized avidin may be purchased separately.

Description	Cat. No.	Package Size
Avidin Gel	A-1001-2	2ml
	A-1001-5	5ml

## Additional Chromatography Products

In addition to more than 80 immobilized lectins, EY Laboratories, Inc. also manufactures a large selection of carbohydrate gels for lectin purification, antibody gels for purification of primary antibodies, and a number of different protein/glycoprotein gels. For further information, please contact customer service at EY Laboratories, Inc.

**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)

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**MATERIAL SAFETY DATA SHEET**

Effective Date: March 31, 2006

Revision 4

Page 1 of 2

**PRODUCT IDENTIFICATION**

Name: Proteins, carbohydrates, and biotin immobilized on a support matrix of acrylamide or polygalactose.

Catalog Number (s): ABP-01, A-1102 to A-9000, MB-1104 to MB-9000, PB-1104 to PB-9000, PG-001 to PG-7011, PB-01 to PB-05, CG-001 to CG-092, AG-001 to AG-032, A-1001 to A-1004, CG-094 to CG-096.

Synonyms: Protein A, Avidin (egg white), D-Biotin, Lectins, Secondary Antibodies, Carbohydrates, Thyroglobulin, Fetuin, Hemoglobin,  $\alpha$ -Lactalbumin, Porcine Stomach Mucin, Ovalbumin, Bovine Submaxillary Mucin, Transferrin, Myoglobin, Strept. Avidin, and 2-Iminobiotin immobilized on a polygalactose matrix or an acrylic (or polyacrylamide) matrix.

**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. The matrix itself is not known to be hazardous. The proteins are covalently attached to the beaded matrix and therefore present a hazard primarily through ingestion or injection. The biological activities of these chemicals will vary. It is possible that the immobilized material may leach off the beaded matrix during use. Care should be used when handling any of these reagents. All of these solutions contain at least 0.1%, but not greater than 1%, 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: No effects of overexposure have been documented. The individual proteins and other ligands may cause allergic reactions in sensitive individuals. This is a problem primarily with material that leaches from the column through use. Local irritation is likely if eye contact occurs.

ROUTES OF EXPOSURE: Ingestion or injection of the beaded material are the primary routes of exposure. Contact with the eyes may also present a hazard.

**PHYSICAL CHARACTERISTICS**

APPEARANCE: Solution containing a maximum of 50% (v/v) of beaded matrix in buffer.

SOLUBILITY: Not applicable.

**FIRE AND EXPLOSION HAZARDS**

EXTINGUISHING MEDIA: Not considered to be a fire hazard.  
Water spray or CO<sub>2</sub>.

SPECIAL FIRE FIGHTING PRECAUTIONS: None required.

NOTE: All solutions contain less than 1% sodium azide (w/v) 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 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, injected, or allowed to contact the eyes. 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. Any eye contact should be reported to a physician immediately.

**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: Required. Goggles or safety glasses with a side shield are Recommended.

RESPIRATORY PROTECTION: Not required unless the formation of aerosols is likely. 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.

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