PRODUCT INFORMATION
Carbohydrate / Glycoprotein Gel

Immobilized biotin, iminobiotin, carbohydrates and glycoproteins have been used successfully for the selective adsorption of proteins (e.g. lectins, avidin) which have an affinity for the biotin, iminobiotin, carbohydrate or glycoprotein that has been covalently linked to support a matrix. Purification may be carried out by applying a sample to the gel, washing through any unbound material, and eluting with a specific carbohydrate solution. The eluting carbohydrate can be removed either by dialysis or gel filtration. The gel is washed adequately to re-use the column many times. The amount of material that can be isolated in each experimental run will vary greatly and is dependent upon the molecular weight of the protein being isolated, its affinity for the particular carbohydrate linked to the gel, flow rates, and temperature.

The gel matrix is polygalactose which may cause problems with proteins having a specificity for galactose.

Catalog Number: CG-030-5

Description: Aminophenyl alpha Fucose Gel, 5mL

Lot Number:

Bead Size: 50-250 micron.

Spacer: None.

Linkage Between Spacer & Bead: Imidoester

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

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

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.

Procedure for Use: See reverse side.

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)

GENERAL PROCEDURE
Carbohydrate / Glycoprotein Gel

The following information is provided only for your convenience. The success of your experiments are not guaranteed by EY Laboratories, Inc.

Procedure for Use:

1. The reaction may be carried out in a test tube (which will require centrifugation for washing steps) or in a small column (either a glass pipette or a plastic mini-column.) Gels may be run at room temperature or in a cold room. Elevated temperatures should be avoided.
2. Wash gel with 10 times the gel volume using the appropriate Buffer. Many proteins will require different buffers, pH, and ionic conditions for binding. Many will also require the addition of specific ions to insure binding. These conditions must be determined, or discovered, experimentally by the researcher.
3. Apply sample and wash unbound material from column with Buffer of your choice. DO NOT OVERWASH!! The affinity for the carbohydrate/glycoprotein depends on the binding constant of the protein. Extensive washing may elute the protein to be purified if the binding constant is low.
4. Elute bound material using the appropriate carbohydrate in the Buffer of your choice. Collect small samples. Unless the optimal carbohydrate concentration has been previously determined it is recommended to start with 0.1M - 0.2M.

Procedure for Gel Regeneration:

1. After elution, wash the gel with 10 times the gel volume using 1.0-1.4 M NaCl in distilled water. Re-equilibrate the gel by washing with 50 times the gel volume using the Storage Buffer (see reverse side). Store refrigerated with 0.05% sodium azide as a preservative. DO NOT store the column in the high salt concentration solution. **DO NOT FREEZE**.

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MATERIAL SAFETY DATA SHEET

Effective Date: March 31, 2006
Revision 4

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, α-Lactalbumin, Porcine Stomach Mucin, Ovalbumin, Bovine Submaxillary Mucin, Transferrin, Myoglobin, Strept. Avidin, and 2-Iminobiotin immobilized on a polygalactose matrix or an acrylic (or polyacrylaminde) matrix.

EMERGENCY INFORMATION

EY Laboratories, Inc.
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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.

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FIRE AND EXPLOSION HAZARDS

Not considered to be a fire hazard.

EXTINGUISHING MEDIA: Water spray or CO_2.

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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