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a-Lactose Gel

Carbohydrate / Glycoprotein Gel

Product Description

Catalog #: AXGZAA, 5ml

Name: a-Lactose Gel, Immobilized Carbohydrates

Bead Size: 50-250 micron.

Spacer: Divinyl Sulfone / none. **Linkage**: Ether / 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.

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

a preservative

For Research Use Only

General informations

Immobilized carbohydrates and glycoproteins have been used successfully for the selective adsorption of proteins (e.g. lectins) which have an affinity for the 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 forthe 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.

General procedure

The following information is provided only for your convenience.

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



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- 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:

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**

Ordering information

Catalog size quantities and prices may be found at http://www.interchim.com. Please inquire for higher quantities (availability, shipment conditions).

Please contact InterBioTech – Interchim for any other information Hotline: +33(0)4 70 03 73 06 – Interbiotech@interchim.com

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