

Product description

for Carbohydrate Adsorbents *

Product description:

AffiSep[®]-Carbohydrate adsorbents made of Sepharose[®] 6B** are adjuvant products for the isolation of proteins. The resins are prepared by using the bifunctional cross-linking reagent divinyl sulfone resulting in a complete coupling procedure. The carbohydrates are attached through hydroxyl groups and the adsorbent might then be applied for isolating carbohydrate-binding proteins. The resins provide a high stability over a broad pH-range and are reusable.

Delivery Contents:

1 x Carbohydrate adsorbent

Appearance: slightly white suspension of sepharose[®] beads in 0.5 M NaCl containing 0,02 % sodium acide

Adsorbent Specifications:

The carbohydrate-coupled resins as well as the binding capacities, each determined with a specific lectin, are listed below:

Cat. No.	Product description	Specificity	Capacity [mg/ mL]	Amount
181020 181021	Lactose Sepharose [®]	e.g. Arachis hypogaea	~ 10	5 mL 10 mL
181030 181031	Mannose Sepharose [®]	e.g. Concanavalin A	~ 30	5 mL 10 mL
181040 181041	N-Acetyl-glucosamine Sepharose [®]	e.g. Triticum vulgare	~ 30	5 mL 10 mL

Storage:

For long-term storage, carbohydrate adsorbents should be stored in 0.5 M NaCl containing 0.02 % sodium acide at 4 °C.

Already packed columns as well as delivered bottles comprehending this adsorbent should not be allowed to dry out.

Operational conditions for carbohydrate adsorbents:

Sample/ Buffers: 0.2 µm-filtered

Max. adsorbent backpressure: 0,2 bar (20 kPa)

Detection wavelength: 280 nm for proteins

Range of pH: Carbohydrate resins can be operated ideally between pH 4 and pH 8.0

Recommended working temperature: 4-8 °C

Procedure

- Wash out the preservative with 4 CV of water. This might be done in a filter funnel or in an already packed column.
- Equilibrate the material with at least 4 CV of working buffer.
In case of working at room temperature, add new preservative to the buffers.
- After loading the protein solution onto the column, wash out unbound protein monitoring the absorbance at 280 nm.
- Elute specifically bound protein by adding 0.1-0.3 M of the elution sugar to the working buffer.

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- Regenerate the adsorbent for immediate reuse with 4 CV of working buffer.

Cleaning procedure

This protocol is for regenerating the adsorbent thoroughly and should be applied to maximise the binding of the target protein.

- Wash the adsorbent with 4 CV of working buffer containing the specific elution sugar.
- Wash the adsorbent with an equal volume of 2.0 M NaCl to elute unspecifically bound components.
- Wash the adsorbent with 4-8 CV of distilled water.

The adsorbent should then be equilibrated with working buffer for reuse or the storage solution should be applied to the adsorbent.

* for research, laboratory and in vitro use only; not for drug or diagnostic use, food or food additives, household or other uses

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