GALAB Technologies GmbH
Am Schleusengraben 7
D-21029 Hamburg
Germany

Product description

for AffiSep® HPLC lectin columns *

Product description:
AffiSep® HPLC lectin columns are designed for the analysis, separation and purification of glycoproteins and other glycoconjugates containing lectin-specific carbohydrate residues. The columns are ready-to-use for operation with common HPLC or FPLC equipment and facilitate lectin affinity separations of glycoproteins in a simple way for fast and reproducible results.

Content:
1 x AffiSep® HPLC lectin column

Column Specifications:
Pore diameter: 1000 Å
Particles: 75 µm mean diameter

Cat.No.	Product description	Lectin	Covalently immobilized lectin [mg/ mL adsorbent]	Amount of bound glycoprotein [µg/ 0.6 mL adsorbent]	Size
011031 011032 011033 011034	AffiSep® WGA column	*Triticum vulgaris*	~6	≥ 100	0.8 mL 1.6 mL 2.5 mL 4.0 mL
011041 011042 011043 011044	AffiSep® ConA column	*Canavalia ensiformis*	~15	≥ 150	0.8 mL 1.6 mL 2.5 mL 4.0 mL
011051 011052 011053 011054	AffiSep® LCH column	*Lens culinaris*	~3	≥ 135	0.8 mL 1.6 mL 2.5 mL 4.0 mL
011061 011062 011063 011064	AffiSep® PNA column	*Arachis hypogaea*	~3	≥ 125	0.8 mL 1.6 mL 2.5 mL 4.0 mL
011071 011072 011073 011074	AffiSep® AIL column	*Artocarpus integrifolia*	~3	≥ 215	0.8 mL 1.6 mL 2.5 mL 4.0 mL
011082	AffiSep® VVL column	*Hairy vetch*	~3	-	1.6 mL
011091 011092 011093	AffiSep® AAL column	*Aleuria aurantia*	~3	-	0.8 mL 1.6 mL 2.5 mL
011121 011122 011123 011124	AffiSep® SNA column	*Sambucus nigra*	~3	≥ 50	0.8 mL 1.6 mL 2.5 mL 4.0 mL
011131 011132 011133 011134	AffiSep® MAL column	*Maackia amurensis*	~3	≥ 125	0.8 mL 1.6 mL 2.5 mL 4.0 mL

Please contact for orders and technical support:
GALAB Technologies GmbH
Tel: +49 / (0) 40368 077 461
Fax: +49 / (0) 40 368 077 401
info@galab.de/ www.galab.de/technologies

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Cat.No.	Product description	Lectin	Covalently immobilized lectin [mg/ mL adsorbent]	Amount of bound glycoprotein [µg/ 0.6 mL adsorbent]	Size
011141 011142 011143 011144	AffiSep® UEA column	*Ulex europaeus*	~3	-	0.8 mL 1.6 mL 2.5 mL 4.0 mL
011151 011152 011153 011154	AffiSep® GNA column	*Galanthus nivalis*	~3	≥ 200	0.8 mL 1.6 mL 2.5 mL 4.0 mL
011161 011162 011163 011164	AffiSep® ECL column	*Erythrina cristagalli*	~5	≥ 100	0.8 mL 1.6 mL 2.5 mL 4.0 mL

Storage:

- Lectin columns should be stored equilibrated in adsorption buffer containing sodium azide at 4 °C.

Handling of buffers and samples:

- All buffer solutions should be filtered through 0,2 µm.
- All samples should be solved in adsorption buffer and filtered through 0,2 µm.

Protocol for column handling:

- Equilibrate column for 30 min with adsorption buffer (flow: 0,8 mL/min)
- Inject prepared sample solution and wash the column with adsorption buffer
- Elute the sample for at least 4 min with the recommended lectin-specific elution buffer at 0,8 mL/min.
- Equilibrate with adsorption buffer for 60 minutes for regeneration.

Operational conditions for Lectin columns:
Max. column backpressure: 100 PSI (7 bar)
Recommended flow rate: 0,6 - 0,8 mL/min
Max. flow rate: 1,2 mL/min
Detection wavelength: 280 nm for glycoproteins, 300 nm for p-Nitrophenyl-carbohydrates
Range of pH: AffiSep® HPLC lectin columns can be operated between pH 4.0 and pH 8.0

Cleaning conditions:
Specifically bound substances can be eluted from the column using the elution buffer. In some cases there might be unwanted unspecific adsorption of contaminants. Then there are the following possible methods for cleaning the lectin columns to remove strongly bound contaminants:

- 2 M NaCl in Adsorption buffer
- 0,5 % Octylglucopyranoside in Adsorption buffer
- 10 % Methanol in Adsorption buffer
- 0,1 % Triton X-100 in Adsorption buffer
- 0,1 M Acetic acid; 0,1 M NaCl; pH 3.0

Apply these cleaning conditions no longer than 20 minutes to the lectin column. After application of one of these steps it is advisable to equilibrate the column with adsorption buffer for at least 1 hour.

* for research, laboratory and in vitro use only

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