

## Product description

### for AffiSpin® Lectin kits\*

#### Product description:

AffiSpin® Lectin kits are designed for the analysis and purification of glycoproteins and other glycoconjugates containing lectin-specific carbohydrate residues. They combine AffiSpin® Lectin columns with the corresponding optimized adsorption and elution buffers, collection and ultrafiltration tubes. The kits are ready-to-use for operation in a centrifuge or with the provided syringes. AffiSpin® Lectin columns facilitate glycoprotein separations in a simple way for fast and reproducible results.

#### Kit Contents (for 2 affinity separations):

2 x AffiSpin® Lectin column packed with 0,1 mL adsorbent  
1 x adsorption buffer, stabilized  
1 x elution buffer, stabilized  
2 x 1 syringe adapters and 2 syringes for sample adsorption and elution  
6 x collection tubes (2 mL, clear) for flow through fractions  
8 x collection tubes (2 mL, green) for elution and washing fractions  
2 x filter devices for concentration of the protein; molecular weight cut-off 10,000 Da

#### AffiSpin® Column Specifications:

Pore diameter: 1000 Å

Particles: 75 µm mean diameter

Cat.No.	Product description	Lectin	Covalently immobilized lectin [mg/ mL adsorbent]	Size
051031	AffiSpin® WGA kit	<i>Triticum vulgare</i>	~6	2 x 0.1 mL
051041	AffiSpin® ConA kit	<i>Canavalia ensiformis</i>	~15	2 x 0.1 mL
051051	AffiSpin® LCH kit	<i>Lens culinaris</i>	~3	2 x 0.1 mL
051061	AffiSpin® PNA kit	<i>Arachis hypogaea</i>	~3	2 x 0.1 mL
051071	AffiSpin® AIL kit	<i>Artocarpus integrifolia</i>	~3	2 x 0.1 mL
051081	AffiSpin® VVL kit	<i>Hairy vetch</i>	~3	2 x 0.1 mL
051091	AffiSpin® AAL kit	<i>Aleuria aurantia</i>	~3	2 x 0.1 mL
051121	AffiSpin® SNA kit	<i>Sambucus nigra</i>	~3	2 x 0.1 mL
051131	AffiSpin® MAL kit	<i>Maackia amurensis</i>	~3	2 x 0.1 mL
051141	AffiSpin® UEA kit	<i>Ulex europaeus</i>	~3	2 x 0.1 mL
051151	AffiSpin® GNA kit	<i>Galanthus nivalis</i>	~3	2 x 0.1 mL
051161	AffiSpin® ECL kit	<i>Erythrina cristagalli</i>	~5	2 x 0.1 mL

#### Preparation of buffers:

- Adsorption buffer: ready to use
- Elution buffer B: ready to use

#### Storage:

- AffiSpin® Lectin columns should be stored equilibrated in adsorption buffer at 4 °C.
- Buffer solutions should be stored at 4 °C.
- Buffers are stable for at least 6 weeks.

#### Operational conditions for lectin columns:

AffiSpin® column centrifugation: 500 rpm

Range of pH: AffiSpin® Lectin columns can be operated between pH 4.0 and pH 8.0

\* 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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### Protocol for using AffiSpin® lectin columns

#### 1. Equilibrating the adsorbent:

Remove the cap and the lower plug from the AffiSpin® column.  
Place the column into an open 2 mL clear collection tube.  
Add 400 µL adsorption buffer A to the column.

The added volume can be passed through the column using one of the following steps:

- a). Attach the supplied adaptor and connect the luer® syringe to the column. Press the buffer slowly through the column.
- or
- b). Spin the open tube for 2 min at 500 rpm

Discard the collected volume.

#### 2. Sample application and flow through:

Place the column into an empty 2 mL collection tube (clear tube).  
Dissolve the sample in 400 µL adsorption buffer.  
Apply the sample to the column and pass the volume through using one of the methods a) or b). Remove the column from the tube and keep the collected volume as fraction 1.  
Wash the affinity column two times with 400 µL adsorption buffer using a) or b) and keep the volume as fraction 2.

#### 3. Sample elution:

Place the column in a 2 mL tube (green tube).  
Elute the bound glyco-compound by adding 400 µL elution buffer and using method a) or b) resulting in fraction 3.  
Add a second time 400 µL elution buffer and collect the eluted sample getting fraction 4.

#### 4. Washing / Regeneration of the affinity support:

Add two times 400 µL adsorption buffer to the column and collect the buffer volume separately using method a) or b) into a green tube obtaining fraction 5 and 6.

For a subsequent protein or activity assay pool fraction 1 and 2 (sample application and flow through) as well as 3-6 (bound and eluted protein).

Therefore you might concentrate and desalt the fractions using the provided centrifugal filter devices as described in the attached protocol.

### Protocol for using centrifugal filter devices

Concentrating and desalting fractions obtained from AffiSpin<sup>®</sup> lectin columns is an easy procedure using the provided centrifugal filter devices as follows:

1. Open cap of filter device.
2. Pre-rinse the membrane of the MWCO device two times with deionized water to wash out traces amounts of glycerine and sodium azide, if necessary. **Do not allow the membrane to dry out prior to use!**
3. Pipette solution into the sample reservoir (0,5 mL maximum volume), without touching the membrane with the pipette tip. Seal the attached cap.
4. Place assembly in a compatible centrifuge and counterbalance with a similar device.  
Align the cap strap toward the centre of the rotor.
5. Spin using ``Centrifugation Guidelines`` for correct spin times and speed.
6. Remove assembly from centrifuge. Separate vial from sample reservoir.
7. Collect the concentrated sample from the insert using a micropipette. If necessary, add a small volume (20-50 µL) of buffer to the insert and re-suspend the concentrated sample before collecting it. For the filtrated sample, remove the insert and cap the filtrate receiver for storage.

### Centrifugation Guidelines

Color Code	Membrane MWCO	Max. g-force	Spin Time (25°C*)
Blue	10 000	14 000	4-20

MWCO: Molecular weight cut-off in Daltons (proteins)

\* Sample concentration in filter devices at 4°C typically takes twice as long as that at 25°C.

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