

# AppliChrom SaloEx Desalting Columns for FPLC

For desalting, removal of small molecules, and buffer exchange using

## Liquid Chromatography systems

Sample volume 0.1 to 1.5mL. Flow rate 1 to 10 mL/min. Max. Backpressure: 3bar



AppliChrom SaloEx Desalting Columns for FPLC are designed for:

- ◆ Separating larger biomolecules (i.e. proteins such as antibodies, enzymes or larger nucleic acids) from unwanted smaller molecules.
- ◆ Buffer exchange, desalting, removal of low molecular weight contaminants, and reaction terminations.
- ◆ Simple, rapid and reproducible separation using a syringe, pump or liquid chromatography system.

The fractionation range for globular proteins is between 1 and 5 kD.

The size exclusion cut-off is approximately 5 kD, which ensures

efficient separation of proteins/peptides/biomolecules larger than 5 kD from lower molecular weight molecules of less than 1 kD.

AppliChrom SaloEx Desalting Columns contain **SaloEx-25 Superfine**, a beaded composite size-exclusion matrix. It exhibits high flow rates, excellent resolution and chemical stability. Buffer and pH effects on resolution are minimal.

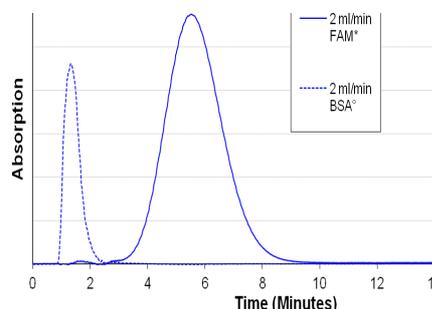
## High Performance Results:

**Sample:** 1 ml of 2 mg/ml BSA & 100µM of 5-Carboxyfluorescein in PBS pH 7.4 (0.05 % NaN<sub>3</sub>).

**Flow rate:** 2 ml/min.

**Eluent:** PBS pH 7.4 (0.05 % NaN<sub>3</sub>)

**Detection:** Abs. at 280nm and 490nm



## AppliChrom SaloEx Desalting Specifications:

Column bed volume	5 mL
Size of eluted Proteins	> 5 kD
System compatibility	<ul style="list-style-type: none"> <li>• Automated liquid chromatography systems</li> <li>• Peristaltic pump</li> <li>• Syringe</li> </ul>
Column dimensions	1.6 cm inner diameter x 2.5 cm height
Column body material	Polypropylene
Column ports	Inlet 10–32 (1/16") female Outlet 10–32 (1/16") male
Support Matrix	AppliChrom SaloEx-25 Superfine
Bead size	20 - 85 µm (hydrated)
Maximum back pressure	3 bar (0.3 MPa)
Recommended flow rate	1 to 5 mL/min
Maximum recommended flow rate	15 mL/min
Storage temperature	Ambient

<b>Storage solution</b>	20 vol % ethanol
<b>Recommended Sample Volume</b>	0.1 – 1.5 mL
<b>Matrix Stability</b>	Stable to all commonly used buffer systems
<b>pH Stability</b>	2 to 13 pH

<b>Order Number</b>	<b>Description</b>	<b>Contents</b>
SED2555	AppliChrom SaloEx Desalting	5 × 5 ml Columns
SED251005	AppliChrom SaloEx Desalting	100 × 5 ml Columns

Adaptor Sets on request

## Standard Protocol for AppliChrom SaloEx Desalting Columns

**Buffer Preparation:** For desalting neutral compounds, a low ionic strength buffer is recommended. For separating charged compounds, a buffer with a higher ionic strength may be required.

**Sample Preparation:** The sample should be free of insoluble compounds and particulates. To extend the life of the column, pass the sample through a filter with a 0.45 µm pore size prior to column loading. Highly viscous samples will require a buffer having a viscosity of not more than 1.5 fold from that of the sample. As a general rule, keep the protein concentration below 65 mg/mL for proteins and 5 mg/mL for high (>1000kD) molecular weight polymers.

**Sample Processing:** For sample volumes of 1.5 mL or less, the higher molecular weight components of your sample will elute between 1.5 and 5.0 mL. Lower molecular weight components will elute after 3.5 mL

### 1. Column equilibration:

- a.** Purge the system tubing with buffer. Remove the **AppliChrom SaloEx Desalting** column inlet stopper. Connect the **AppliChrom SaloEx Desalting** column inlet to the system tubing without introducing air bubbles into the column.
- b.** Remove the endcap from the **AppliChrom SaloEx Desalting** column outlet and run a minimum of 25 mL buffer at a flow rate of no more than 5 mL/min to remove the storage ethanol and to fully equilibrate the **AppliChrom SaloEx Desalting** column with the buffer.

### 2. Pump or Chromatography System Use:

- a.** After the **AppliChrom SaloEx Desalting** column has been equilibrated, apply a sample having a volume of no more than 1.5 mL. Monitor the column effluent using a UV, conductivity, fluorescence or other detection system. Keep the flow rate optimally between 1 and 10 mL/min. Collect eluent fractions to recover the purified sample.
- b.** When the sample processing is completed, flush the column with a minimum of 25 mL buffer at no more than 5 mL/min before processing the next sample. Monitor the column effluent using a UV, conductivity, fluorescence or other detection system to assure the column is ready.

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