AppliChrom SaloEx-25

Gel filtration matrix

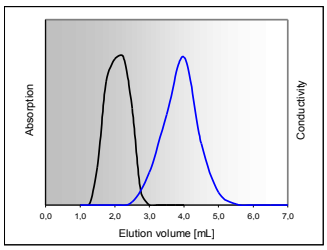
for process purification of proteins and nucleic acids

AppliChrom SaloEx-25 is a beaded composite material composed partially of polymerized dextran. It exhibits high selectivity, high resolution and chemical stability.

AppliChrom SaloEx-25 is a size-exclusion matrix. Molecules purified with AppliChrom SaloEx-25 are separated according to size. Smaller molecules pass significantly slower through the column than larger molecules. Buffer and pH effects on resolution are minimal. The size exclusion cut-off for AppliChrom SaloEx-25 is set at for 10 kD proteins and 10 bp for nucleic acids. Purified biomolecules are not significantly diluted when processed using AppliChrom SaloEx-25.

High Performance Results:

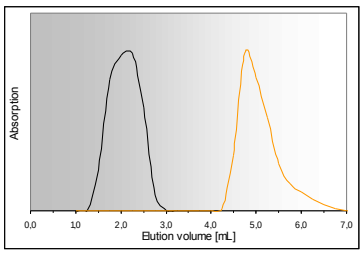
- Over 90% recovery
- Easy to use
- High chemical stability
- High resolution



Protein Desalting from 0.8M NaCl

Protein (280nm): black line
NaCl (µS): blue line

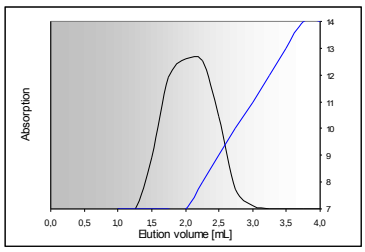
1 mg IgG anti-Rabbit in 1 mL 0.8 M sodium chloride. Elution with pure water.



Removal of FITC from IgG

IgG (280nm): black line
FITC (550nm): yellow line

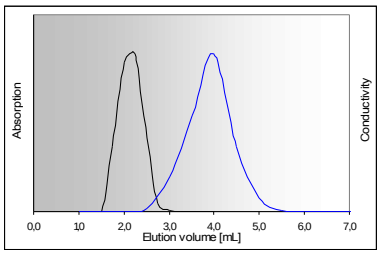
1 mg IgG anti-Rabbit and 0.1 µmol FITC in 1 mL DMSO/$NaHCO_3$. Removal of excess FITC after coupling reaction. Elution with PBS.



Removal of ammonia (33% NH_3) from Dextran Blue

Dextran Blue (260nm): black line
NH_3 (pH): blue line

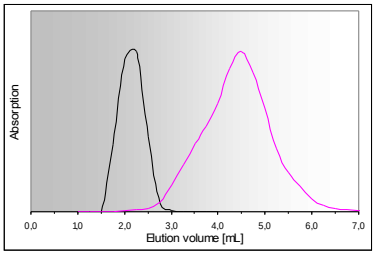
0.5 mg Dextran Blue (M_r 2,000,000) in 1 mL ammonia (33%). Elution with pure water.



Oligo Desalting from 0.8M NaCl

Oligo (260nm): black line
NaCl (µS): blue line

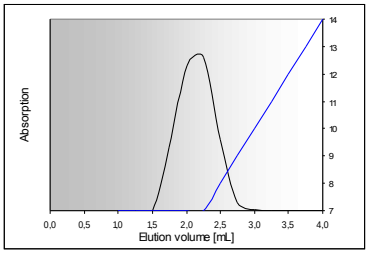
1 mg oligonucleotide (18-mer) in 1 mL 0.8 M sodium chloride.



Removal of Rhodamine from Oligonucleotide Labelling

Oligo (260nm): black line
TAMRA (550nm): red line

1 mg oligonucleotide (18-mer) and 0.5 µmol TAMRA in 1 mL DMSO/$NaHCO_3$. Removal of excess TAMRA after coupling reaction



Removal of ammonia (33% NH_3) from Nucleic acid

Oligo (260nm): black line
NH_3 (pH): blue line

1 mg oligonucleotide (18-mer) in 1 mL ammonia (33%) after cleavage from solid support and protection group removal

AppliChrom® Application & Chromatographie
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Instructions for Hydration

AppliChrom SaloEx-25 is provided as a dry powder. Before use, it must be hydrated. Do not stir the hydrating SaloEx excessively during hydration, as this will damage the beads. Do not use magnetic stirrers.

AppliChrom SaloEx-25 Medium will swell to a volume of approximately 5 mL for every one gram of dry AppliChrom SaloEx-25. As a general rule, use 6.5 to 10 mL hydration buffer or water for every gram AppliChrom SaloEx-25 that is to be hydrated.

Choose the bed volume required for your application, determine the number of grams of AppliChrom SaloEx-25 required and then determine the volume of hydration buffer or water required.

Hydrate AppliChrom SaloEx-25 at room temperature for 3 hours or at 90°C for 1 hour. Hydrated AppliChrom SaloEx-25 may be sterilized at neutral pH by autoclaving for 30 minutes at 120°C. For best results, the hydrated slurry should be degassed before use.

For re-use, the hydrated gel can be washed with 2 column-volumes of 0.2 M NaOH, rinsed with 2 column-volumes water, and re-equilibrated with 2-3 column volumes of buffer.

For storage, antimicrobial agents should be added to the suspension to prevent contamination (0.001% phenyl mercuric salts, 0.005% thimerosal, 0.05% chlorobutanol, 0.002% chlorhexine, 0.02% sodium azide, or 20% ethanol are acceptable). Hydrated AppliChrom SaloEx-25 may be stored at +2 to +4°C. Do not freeze! Allow the gel to equilibrate to room temperature before use.

Fractionation range (globular proteins)- M_r	1000-5000
Fractionation range (dextrans)- M_r	100-5000
Bead structure	Cross-linked dextran composite
Bead size (Dry)	50-150 µm
Bead size (Wet)	85-260 µm
Maximum operating pressure	Obeys Darcy's Law
Chemical stability	All commonly used buffers, including: 0.2M NaOH; 0.2M HCl; 1M acetic acid; 8M urea; 6M guanidine HCl; 1% SDS, 24% Ethanol; 30% Propanol; 30% Acetonitrile.
pH stability	2.0 to 13.0
Autoclavable	at 121°C, pH 7 for 30 minutes

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