



Complex Protein Sample Mixtures Analysis on Sepax Columns

Highlighted FACTS:

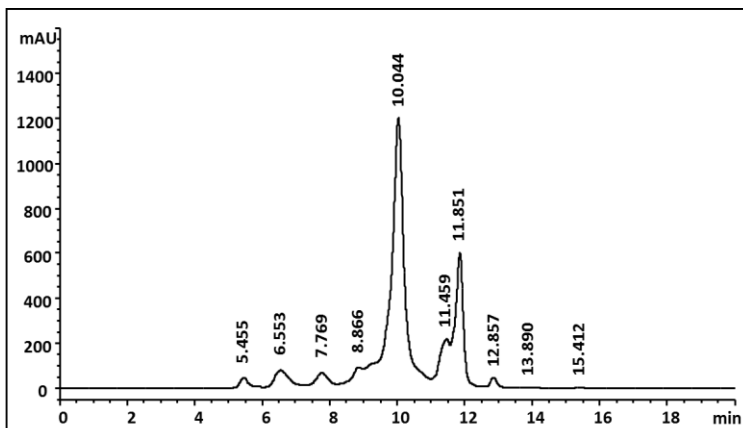
- We show the separation of different complex mixtures such as Human Serum, E. Coli Lysate or Mouse Ascites using SEC, IEX and RP chemistries.
- Sepax's SEC columns can provide separation between different MW species in a complex mixture. We offer a range of different pore sizes in order to narrow in on your peak of interest.
- Sepax's Ion exchange columns are a good solution for the separation of different charges in a complex sample. We offer sub 2 micron particle sizes for increased resolution of these more difficult samples.
- Sepax's Proteomix RP is a polymer based reverse phase column which can also be used to separate out complex samples, but under denaturing conditions.

Order Information

| | |
|-------------|---|
| 215500-7830 | SRT SEC-500, 5µm, 500 A 7.8 x 300 mm |
| 233300-7830 | Zenix-C SEC-300, 3µm, 300 A 7.8 x 300 mm |
| 213080-7830 | Zenix SEC-80, 3µm, 80 A 7.8 x 300 mm |
| 213150-7830 | Zenix SEC-150, 3µm, 150 A 7.8 x 300 mm |
| 213300-7830 | Zenix SEC-300, 3µm, 300 A 7.8 x 300 mm |
| 401NP2-2103 | Proteomix SCX-NP1.7, 1.7µm, NP 2.1 x 30 mm |
| 403NP3-4605 | Proteomix SAX-NP3, 3µm, NP 4.6 x 50 mm |
| 403NP3-7810 | Proteomix SAX-NP3, 3µm, NP 7.8 x 100 mm |
| 465500-4610 | Proteomix RP-500, 5µm, 500 A 4.6 x 100 mm |
| 465950-4610 | Proteomix RP-1000, 5µm, 1000 A 4.6 x 100 mm |

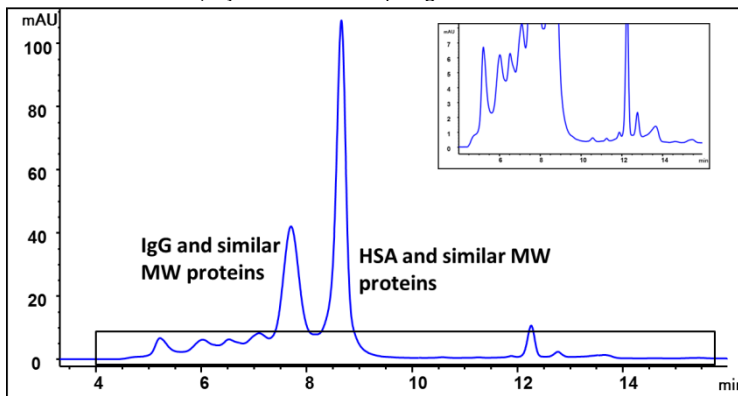
Mouse ascites Analysis on SRT SEC-500

Column: SRT SEC-500 (5 µm, 500 Å, 7.8 x 300 mm)
 Mobile phase: 150 mM Phosphate buffer, pH 7; Flow rate: 1.0 mL/min;
 Detector: UV 280 nm;
 Injection volume: 50 µL; Column temperature: 25 °C;
 Sample: Fresh mouse ascites



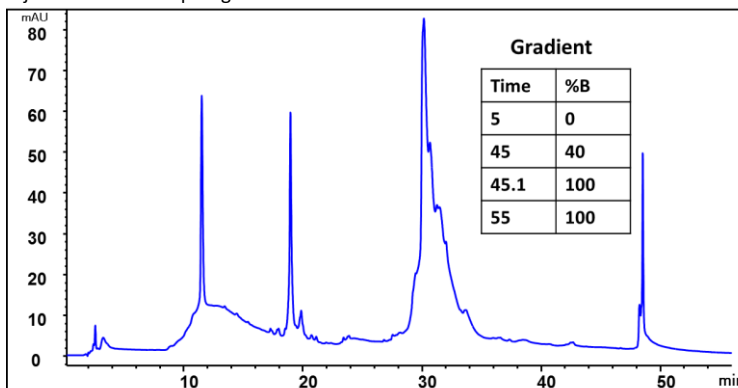
Human Serum on Zenix-C SEC-300

Column: Zenix-C SEC-300 (3 µm, 300 Å, 7.8 x 300 mm)
 Mobile phase: 150 mM phosphate buffer, pH 7.0; Flow rate: 1 mL/min;
 Detection: UV 280 nm; Injection Volume: 1 µL Sigma human serum S7023



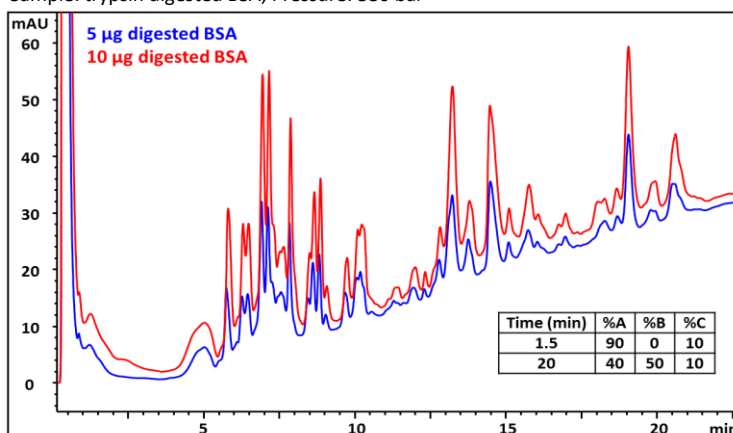
Human Serum on Proteomix SAX

Column: Proteomix SAX-NP3 3 µm, NP, 7.8 x 100 mm
 Mobile phase: A: 20 mM Tris, pH 8.0, B: A+1M NaCl;
 Flow rate: 0.8 mL/min; Detection: UV 280 nm;
 Injection Volume: 5 µL Sigma human serum S7023 diluted 10 fold with buffer A



Trypsin Digested BSA on Proteomix SCX 1.7

Column: Proteomix SCX-NP1.7 (1.7 µm, NP, 2.1 x 30 mm) without guard
 Flow rate: 0.35 mL/min; Detection: UV 214 nm; Mobile phase: A: 10 mM phosphate buffer pH 2.5, B: A + 1 M NaCl, C: 100% acetonitrile;
 Sample: trypsin digested BSA, Pressure: 380 bar





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E. Coli lysate separation on SEC

Overlay of SEC-150 and SEC-300 for E. coli lysate separation-UV280 nm

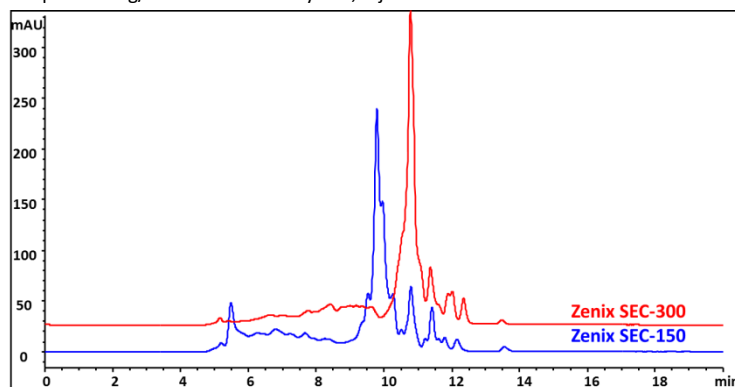
Column: Zenix SEC-150 (3 μ m, 150 \AA , 7.8x300 mm)

Zenix SEC-300 (3 μ m, 300 \AA , 7.8x300 mm)

Mobile phase: 150mM Sodium Phosphate Buffer, pH=7.0

Flow rate: 1 mL/min; Detector: UV 280 nm; Column temperature: 25 $^{\circ}$ C ;

Sample: 2.7 mg/mL Bio-rad E. coli lysate; Injection volume: 10 mL



SEC-150 and SEC-300 in tandem for E. coli lysate separation

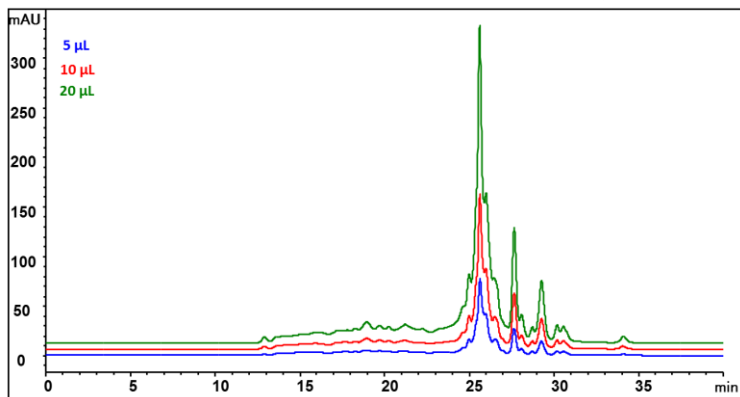
Column: Zenix SEC-150 (3 μ m, 150 \AA , 7.8 x 300 mm) and

Zenix SEC-300 (3 μ m, 300 \AA , 7.8 x 300 mm)

Mobile phase: 150 mM Sodium Phosphate Buffer, pH=7.0 ;

Flow rate: 0.8 mL/min; Detector: UV 280 nm; Column temperature: 25 $^{\circ}$ C ;

Sample: 2.7 mg/mL Bio-rad E. coli lysate; Injection volume: 5, 10, 20 μ L



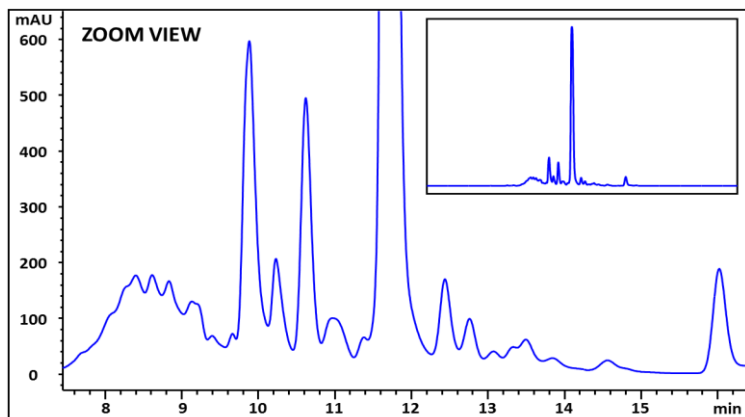
Analysis of E.coli Tryptic Digest on Zenix SEC-80

Column: Zenix SEC-80 (3 μ m, 80 \AA , 7.8 x 300 mm)

Mobile Phase: 25 mM Sodium Acetate + 300 mM NaCl pH 4.5; Flow Rate: 0.8

mL/min; Detection: UV 214 nm; Injection Volume: 40 μ L (20 μ g digested protein);

Samples: E.coli tryptic digest



E. Coli lysate separation on IEX

Separation of E. coli lysate with Proteomix SAX columns

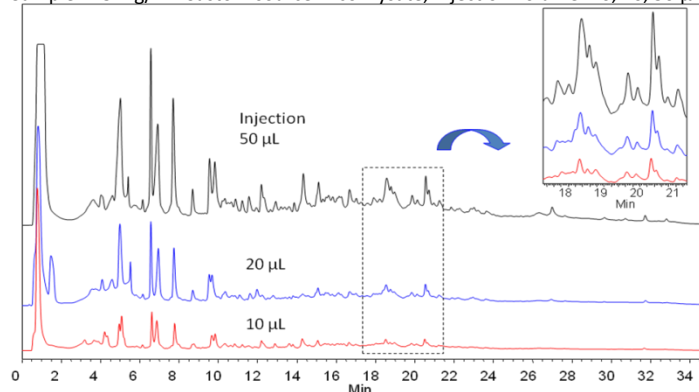
Column: Proteomix SAX-NP3 (3 μ m, NP, 4.6 x 50 mm)

Mobile phase: A: 20 mM Tris, pH 9.0;

B: A + 0.5 M NaCl; Gradient: 0-100% B (30 min)

Flow rate: 1 mL/min; Detector: UV 280 nm; Column temperature: ambient;

Sample: 2.5 mg/mL Custom source E. coli lysate; Injection volume: 10, 20, 50 μ L



E. Coli lysate separation on RP

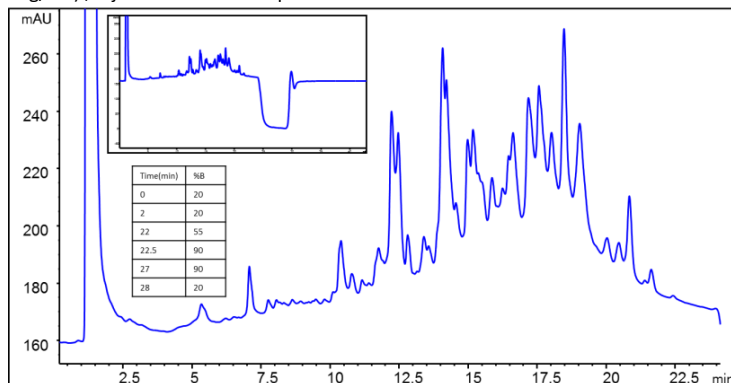
E. Coli lysate separation on Proteimix RP-1000

Column: Proteomix RP-1000 (5 μ m, 1000 \AA , 4.6 x 100 mm)

Mobile phase: A: 0.1% TFA in water; B: 0.1% TFA in 100% ACN;

Flow rate: 1.0 mL/min; Detector: UV 210 nm; Column temperature: 80 $^{\circ}$ C ;

Sample: Bio-rad E. coli lysate diluted in 0.1% TFA, filter before injection (1.3 mg/mL) ; Injection volume: 30 μ L



Bio-rad E. Coli lysate separation on Proteimix RP (1000 \AA vs. 500 \AA)

Column: Proteomix RP-1000 (5 μ m, 1000 \AA , 4.6 x 100 mm)

Proteomix RP-500 (5 μ m, 500 \AA , 4.6 x 100 mm)

Mobile phase: A: 0.1% TFA in water; B: 0.1% TFA in 100% ACN;

Flow rate: 1.0 mL/min; Detector: UV 210 nm; Column temperature: 80 $^{\circ}$ C ;

Sample: 2.7 mg/mL, 10 mL

