#### Zenix™ SEC-80 and Zenix™-C SEC-80 for Peptide Analysis



Having trouble applying size exclusion chromatography to peptides under 50,000 Da? What if there was a size exclusion column specifically designed for small protein and peptide separations?

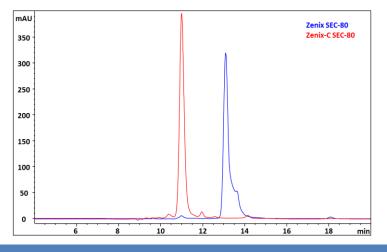
### Sepax's Zenix™ and Zenix™-C SEC-80 provide a valuable solution

### **Highlighted FACTS:**

- ► Sepax's 80 Å pore size was developed for analyzing small peptides and proteins with molecular weights under 50,000 Daltons.
- ▶ Organics in the mobile phase are an alternative additive for the analysis of hydrophobic, or sticky, sample types.
- ► The Zenix™-C SEC phase has a coating chemistry with a lay-down monolayer on porous silica which was developed for the analysis of hydrophobic, or sticky, sample types.
- ▶ A short, 2.1 x 50 mm, column is advantageous for use during a fast mass spec analysis of large biomolecules and small molecule drugs.

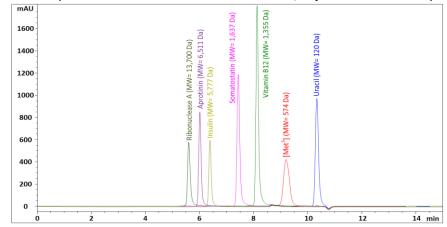
## Differences between Zenix<sup>™</sup> and Zenix<sup>™</sup>-C SEC-80 Phases for the Analysis of Angiotensin I Acetate

Column: Zenix SEC-80 7.8x300 mm, Flow rate: 1 mL/min, Detection: UV 214 and 280 nm, Mobile phase: 150 mM Sodium Phosphate Buffer pH 7.0, Injection Volume: 5  $\mu$ L

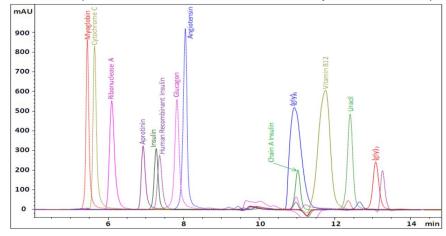


### Overlay of Peptide Runs on Zenix™ SEC-80 7.8 x 300 mm Column: Zenix SEC-80 7.8x300 mm, Flow rate: 1mL/min, Detection: UV 214 nm,

Mobile phase: 75% Acetonitrile with 0.1% TFA, Injection Volume: 5  $\mu$ L

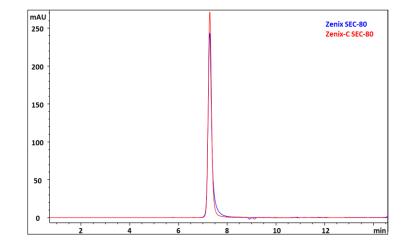


### Overlay of Peptide Runs on Zenix<sup>TM</sup>-C SEC-80 7.8 x 300 mm Column: Zenix-C SEC-80 7.8x300 mm, Flow rate: 1mL/min, Detection: UV 214 nm, Mobile phase: 75% Acetonitrile with 0.1% TFA, Injection Volume: 5 μL



## Similarities between Zenix<sup>™</sup> and Zenix<sup>™</sup>-C SEC-80 Phases for the Analysis of Aprotinin

Column: Zenix SEC-80 7.8x300 mm, Flow rate: 1 mL/min, Detection: UV 214 and 280 nm, Mobile phase: 150 mM Sodium Phosphate Buffer pH 7.0, Injection Volume: 5  $\mu$ L



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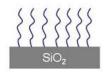
### Zenix™ SEC-80 and Zenix™-C SEC-80 for Peptide Analysis

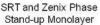
# **APPLICATION NOTES**

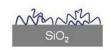
## What are Zenix™ SEC-80 and Zenix™-C SEC-80?

### Sepax Zenix<sup>TM</sup> and Zenix-C SEC-80 (Size Exclusion):

Ultra-high efficiency and resolution SEC column. Zenix™-80 SEC 3um is specifically designed for small protein and peptide separations. Delivering unrivaled resolving power and reproducibility. Made of uniform, hydrophilic, and neutral nanometer thick proprietary surface coating chemically bonded on silica, offers long column lifespan and negligible non-specific interactions.







SRT-C and Zenix-C Phase Lay-down Monolayer

### **Technical Specifications:**

Phase Zenix SEC-80 and

Zenix-C SEC-80

Material Neutral, hydrophilic

film bonded silica

Particle size (µm) 3
Pore size (Å) 80

pH stability

01C 312C (A)

2 – 8.5 (pH 8.5-9.5 can be tolerated

tomporarily

temporarily)

Backpressure (psi) ~ 1,500

Maximum backpressure ~ 4,500

Maximum temperature ~ 80 °C

Mobile phase Aqueous and compatibility organics

### Sepax Technologies, Inc.

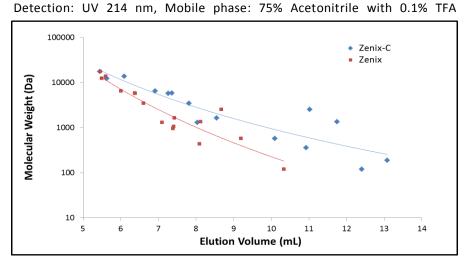
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Newark, Delaware 19711, USA

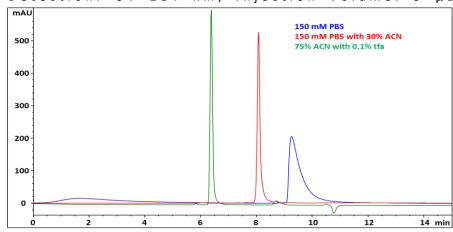
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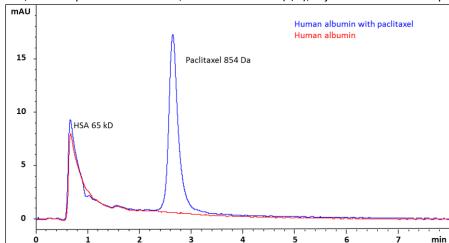
## Calibration Curve for Zenix™ and Zenix™-C SEC-80 Column: Zenix™ SEC-80 and Zenix™-C SEC-80 7.8x300 mm, Flow rate: 1 mL/min,



# Mobile Phase Comparison on Zenix<sup>™</sup> SEC-80 7.8 x 300 mm Column: Zenix<sup>™</sup> SEC-80 7.8x300 mm, Flow rate: 1 mL/min, Detection: UV 214 nm, Injection Volume: 5 μL



# Fast Analysis using a Zenix<sup>™</sup> SEC-80 2.1 x 50 mm for Mass Spec Column: Zenix<sup>™</sup> SEC-80 7.8x300 mm, Flow rate: 0.2 mL/min, Detection: UV 228 nm, Mobile phase: 50 mM NH<sub>4</sub>Ac : ACN = 70:30 (v/v), Injection Volume: 0.1 μL



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