

Sepax Application PM1019

MAb IgG1 and IgG2 Charge Variants Separation by Sepax Narrow-bore (2.1 mm I.D.) Proteomix SCX Column

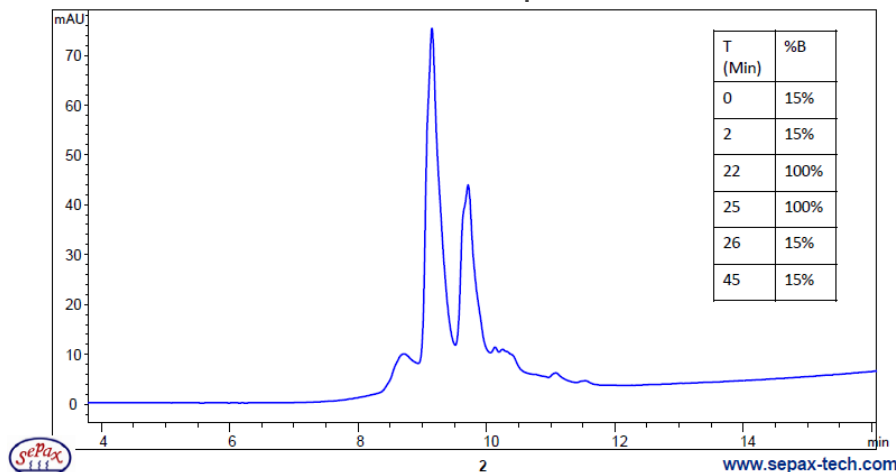
Two IgG1 products, Erbitux (Cetuximab and Rituxan (Rituximab), were also being analyzed in this study. While Erbitux also shows better resolution using this pH gradient, salt gradient outperforms on Rituxan.

IgG2: Vectibix (PanitumumAb)

IgG1: Erbitux (Cetuximab), Rituxan (Rituximab)

Sepax column: Proteomix SCX NP5, 5 μ m, 2.1x250 mm, PEEK (PN: 401NP5P-2125)

Vectibix (PanitumumAb) IgG2 Charge Variants Separation Proteomix SCX NP5 2.1x250 mm PEEK - pH Gradient



IgG2 is a pretty challenging molecule. During our screening, we found this pH gradient achieved good resolution and outperformed other salt and pH gradients on this Vectibix (PanitumumAb) sample.

Column: Proteomix SCX NP5, 5 μ m, 2.1x250 mm, PEEK (PN: 401NP5P-2125)

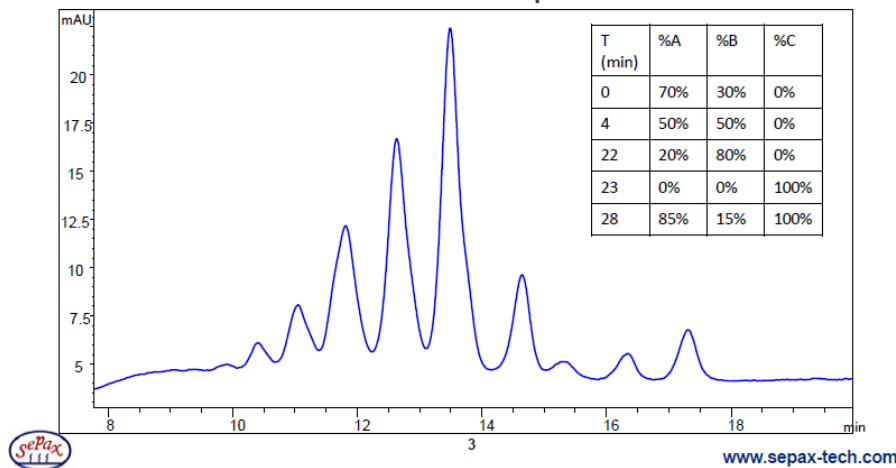
Mobile Phase A: 16 mM MES, 10 mM MOPS, 12 mM TAPS, 10 mM CAPSO, 30 mM NaCl pH 5.6

Mobile Phase B: 10 mM MES, 12 mM MOPS, 14 mM TAPS, 16 mM CAPSO, 30 mM NaCl pH 10.2

Flow Rate: 0.3 mL/min; Detection: UV 280 nm; Temperature: 25 °C;

Sample: Vectibix 10 mg/mL diluted with water from 20 mg/mL stock; Injection Volume: 1 μ L

Erbitux (Cetuximab) IgG1 Charge Variants Separation Proteomix SCX NP5 2.1x250 mm PEEK - pH Gradient



Two IgG1 products, Erbitux (Cetuximab and Rituxan (Rituximab), were also being analyzed in this study. While Erbitux also shows better resolution using this pH gradient, salt gradient outperforms on Rituxan.

Column: Proteomix SCX NP5, 5 μ m, 2.1x250 mm, PEEK (PN: 401NP5P-2125)

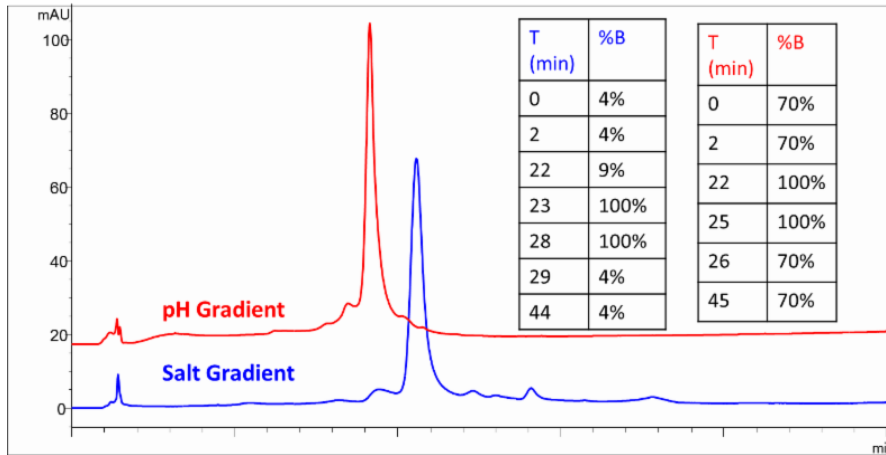
Mobile phase A: 16 mM MES, 10 mM MOPS, 12 mM TAPS, 10 mM CAPSO, 30 mM NaCl, pH 5.6

Mobile phase B: 10 mM MES, 12 mM MOPS, 14 mM TAPS, 16 mM CAPSO, 30 mM NaCl, pH 10.2

Mobile phase C: B+1 M NaCl, Flow rate: 0.3 mL/min; Detector: UV 280 nm; Column temperature: 25 °C

Injection volume: 3 μ L; Sample: 2 mg/mL Erbitux

Rituxan (Rituximab) IgG1 Charge Variants Separation - Salt Gradient vs pH Gradient



Column: Proteomix SCX NP5, 5 μ m, 2.1x250 mm, PEEK (PN: 401NP5P-2125)
 Flow Rate: 0.3 mL/min; Detection: UV 280 nm;
 Temperature: 25 °C;
 Sample: Rituximab 10 mg/mL; Injection Volume: 1 μ L,
 Salt Gradient: Mobile Phase A: 10 mM Sodium Phosphate pH 7.5,
 Mobile Phase B: A + 1M NaCl
 pH Gradient: Mobile phase A: 16 mM MES, 10 mM MOPS, 12 mM TAPS, 10 mM CAPSO, 30 mM NaCl, pH 5.6
 Mobile phase B: 10 mM MES, 12 mM MOPS, 14 mM TAPS, 16 mM CAPSO, 30 mM NaCl, pH 10.2
 Mobile phase C: B+1 M NaCl

Article	Description
401NP5P-2125	Sepax Proteomix SCX-NP5 PEEK, 5 μ m, NP 2,1 x 250 mm
401NP3-4615	Sepax Proteomix SCX-NP3, 3 μ m, NP 4,6 x 150 mm
211300-4615	Sepax Unix SEC-300, 1,8 μ m, 300 A 4,6 x 150 mm
211200-4615	Sepax Unix SEC-200, 1,8 μ m, 200 A 4,6 x 150 mm

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Zenix®-C SEC

Utilizing innovative chemistry and proprietary coating, 3 μ m Zenix®-C SEC lines are ideal for the separation of hydrophobic samples, such as ADCs (Antibody Drug Conjugates), membrane proteins, and PEGylated proteins. Zenix®-C lines have pore size selection of 300, 150, 100 and 80 Å.



ADCs Solution

A full Antibody Drug Conjugates (ADCs) chromatographic separation solution includes Zenix®-C SEC for analysis of ADCs aggregate, monomer, fragment and free drug, Proteomix® HIC Butyl and RP-1000 for Drug to Antibody Ratio (DAR) analysis, and Proteomix® and Antibodix® IEX for ADCs charge variants studies.



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