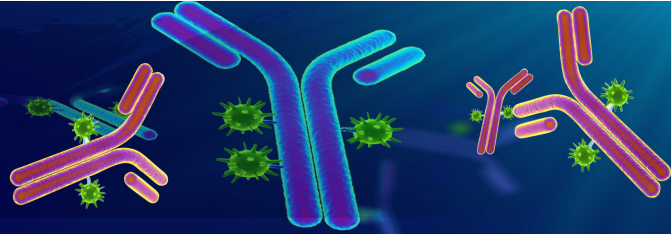




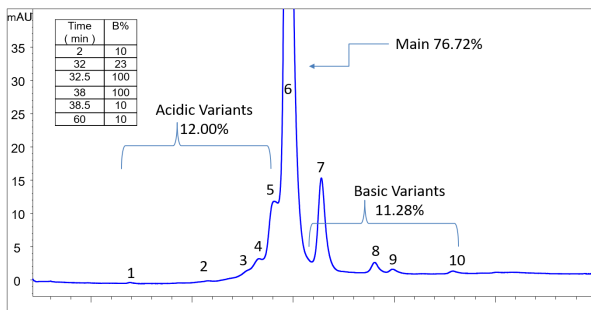
Better Surface Chemistry  
for Better Separation



## NIST MAb Charge Variants Separation by Sepax Cation Exchange Chromatography

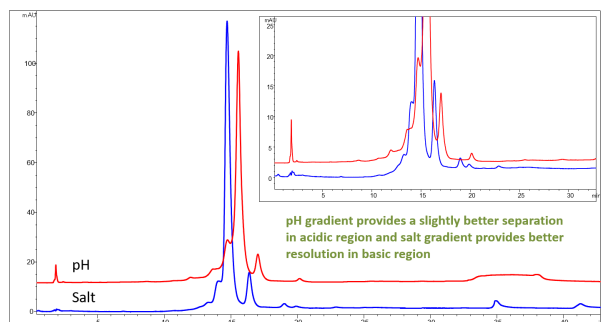
- Using a simple salt gradient, Sepax Cation Exchange Chromatography (CEX) can successfully resolve acidic and basic charge variants of NIST reference mAb
- Salt gradient provides better resolution in basic region while pH gradient offers a slightly better separation in acidic region
- CEX can be a complimentary method to cIEF for charge variants analysis with the added benefits of fraction collection for further characterization
- C-terminal lysine variants and mAb stability variants such as deamidation can be monitored by CEX separation

Proteomix SCX - Salt gradient



Column: Proteomix SCX-NP5, 5  $\mu$ m, 4.6 x 250 mm PEEK (PN:401NP5P-4625); Mobile Phase: A: 10 mM phosphate, pH 7.0, B: A+ 0.5 M NaCl; Flow rate: 1.0 mL/min; System: HPLC; Column Temperature: 30  $^{\circ}$ C; Detection: UV 280 nm; Sample: NIST mAb; Injection volume: 60  $\mu$ g (pl 9.18, in 12.5 mM histidine, pH 6.0)

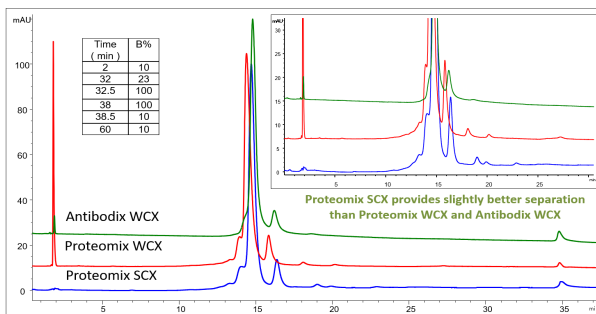
Proteomix SCX - Salt vs. pH Gradient



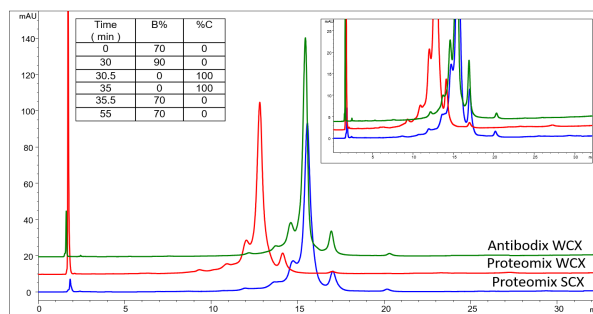
Column: Proteomix SCX-NP5, 5  $\mu$ m, 4.6 x 250 mm PEEK (PN:401NP5P-4625); Flow rate: 1.0 mL/min; System: HPLC; Column Temperature: 25  $^{\circ}$ C; Detection: UV 214 nm; Sample: NIST mAb; Injection volume: 60  $\mu$ g (pl 9.18, in 12.5 mM histidine, pH 6.0)

Three CEX Phases Screening – Salt Gradient

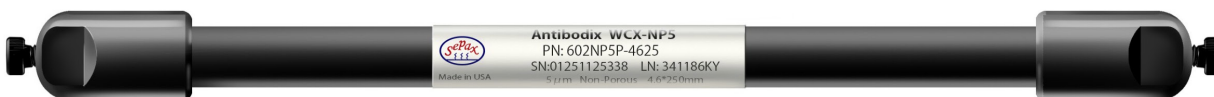
Three CEX Phases Screening – pH Gradient



**Column:** Proteomix SCX, WCX and Antibodix WCX NP5 ( 5  $\mu$ m, 4.6 x 250 mm PEEK) (PN:CEXKITP-4625); **Mobile Phase:** 10 mM phosphate, pH 7.0, B: A+ 0.5 M NaCl; **Flow rate:** 1.0 mL/min; **System:** HPLC; **Column Temperature:** 25  $^{\circ}$ C; **Detection:** UV 280 nm; **Sample:** NIST mAb; Injection volume: 60  $\mu$ g (pl 9.18, in 12.5 mM histidine, pH 6.0)



**Column:** Proteomix SCX, WCX and Antibodix WCX NP5 ( 5  $\mu$ m, 4.6 x 250 mm PEEK) (PN:CEXKITP-4625); **Mobile Phase:** A: 16 mM MES, 10 mM MOPS, 12 mM TAPS, 10 mM CAPSO, pH 5.6; B: 10 mM MES, 12 mM MOPS, 14 mM TAPS, 16 mM CAPSO, pH 10.2 C: B+ 150 mM NaCl; **Flow rate:** 1.0 mL/min; **System:** HPLC; **Column Temperature:** 25  $^{\circ}$ C; **Detection:** 280 nm; **Sample:** NIST mAb; Injection volume: 60  $\mu$ g (pl 9.18, in 12.5 mM histidine, pH 6.0)



401NP5P-4625	Proteomix SCX-NP5, 5 $\mu$ m, 4.6x250mm PEEK	15%OFF
402NP5P-4625	Proteomix WCX-NP5, 5 $\mu$ m, 4.6x250mm PEEK	15%OFF
602NP5P-4625	Antibodix WCX-NP5, 5 $\mu$ m, 4.6x250mm PEEK	15%OFF
CEXKITP-4625	CEX Column Screening Kit: Proteomix WCX, Proteomix SCX, & Antibodix WCX (5 $\mu$ m, 4.6 x 250 mm, PEEK)	25%OFF (BEST VALUE)

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