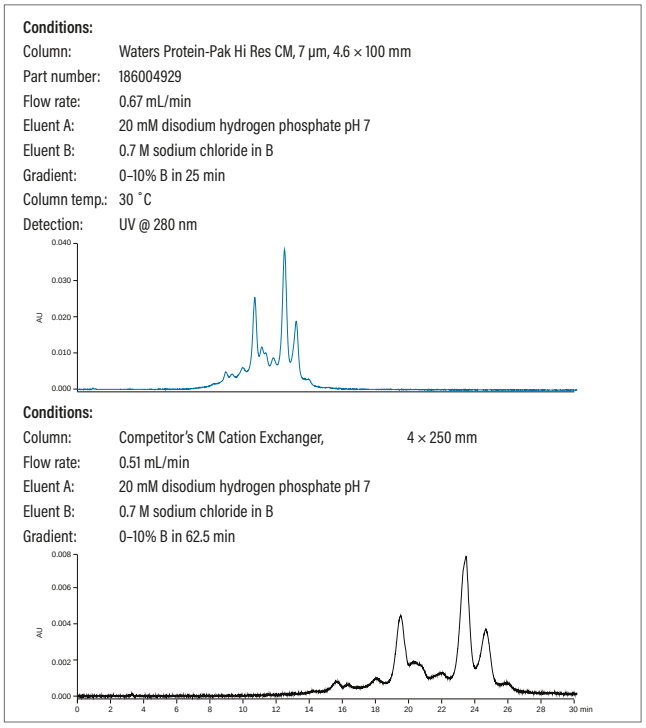
PROTEIN-PAK HI RES ION-EXCHANGE (IEX) COLUMNS FOR ACQUITY UPLC APPLICATIONS

To help you characterize recombinant proteins, monoclonal antibodies, and other biological compounds, we developed our Protein-Pak™ Hi Res Ion-Exchange (IEX) Columns. The nonporous, high compound binding capacity of their particles yields outstanding resolution of charged species faster than many traditional, porous IEX offerings. In addition, we quality control test our columns using defined protein standards, to ensure consistent batch-to-batch performance.

Protein-Pak Hi Res Ion-Exchange (IEX) Columns offer these benefits:

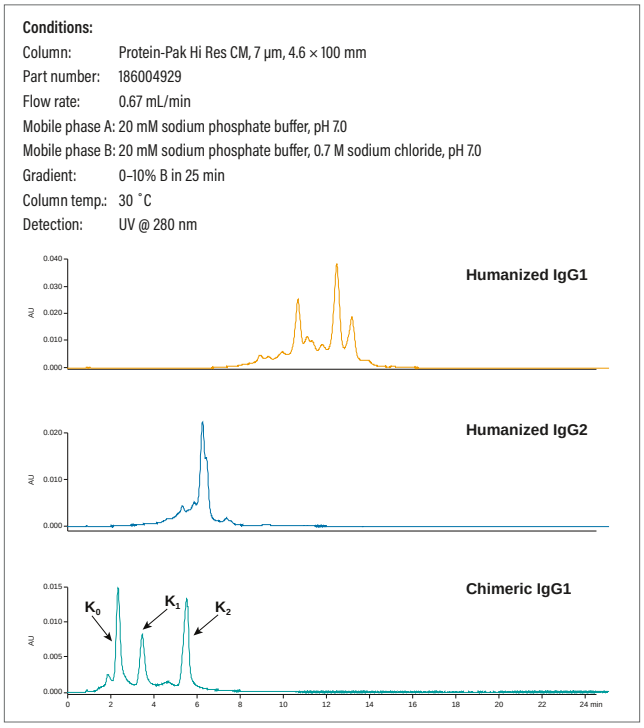
- Designed for the characterization of protein charge variants and other biocompounds
- Two cation exchangers (carboxymethyl and sulfopropyl) and one anion exchanger (quaternary ammonium) that address selectivity needs
- Nonporous, high capacity, stationary phases deliver fast separations that address high-throughput needs
- Quality-control tested using protein standards to ensure batch-to-batch consistency
- eCord enabled, to help monitor column use on ACQUITY UPLC Systems

Resolved Monoclonal Antibody (mAb) Isoform Separation



Cation-exchange chromatography is a useful tool for the characterizing and quantifying mAb or recombinant protein variants. Use of Waters Protein-Pak Hi Res CM Column on an ACQUITY UPLC System increases sample throughput while maintaining resolution between the intended product and undesired variants.

Protein-Pak Hi Res CM Analysis of Three mAbs Containing Different Levels of Variants



Sequence, production, storage, and shipping conditions influence the degree of variants contained in a biotherapeutic protein. Waters Protein-Pak Hi Res CM Column can successfully resolve variations that could involve as little as a single amino acid change (K_0 = No terminal lysines, K_1 = One terminal Lysine, and K_2 = Two terminal Lysines).

Ordering Information

Protein-Pak Hi Res UPLC Columns

Description	Dimension	P/N
Protein-Pak Hi Res CM, 7 µm	4.6 × 100 mm	186004929
Protein-Pak Hi Res SP, 7 µm	4.6 × 100 mm	186004930
Protein-Pak Hi Res Q, 5 µm	4.6 × 100 mm	186004931

Note: Only when Protein-Pak Hi Res IEX Columns are combined with the ACQUITY UPLC System are the full performance benefits realized.
See Waters service notes, p/n: 715002147A, for ACQUITY UPLC System configuration guidelines for ion-exchange chromatography.