



Non-porous Proteomix Ion-exchanger – High Resolution and High Capacity

A Breakthrough for Biological Separation

Column Information

Proteomix ion-exchange columns are specially designed for high resolution, high efficiency and high recovery separations of proteins, oligonucleotides and peptides. The packing support is composed of a rigid, spherical, highly cross-linked poly(styrene divinylbenzene) (PS/DVB) non-porous bead. The non-porous resin has particle size of 1, 1.7, 3, 5 and 10 μm . The PS/DVB resin surface is grafted with a highly hydrophilic, neutral polymer thin layer with the thickness in the range of nanometer. On the top of the hydrophilic layer, ion-exchange functional groups are attached via a proprietary chemistry, resulting in high capacity ion-exchange layer.

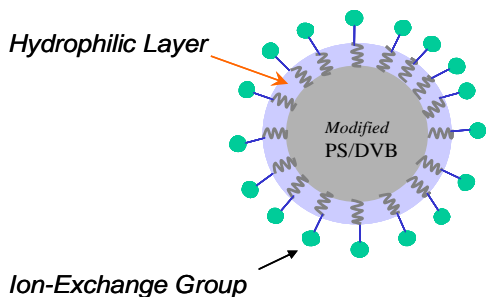


Fig. 1. Schematic structure of Proteomix ion-exchange resin.

Applications

Protein Separation by Non-porous Proteomix SAX and Porous SAX

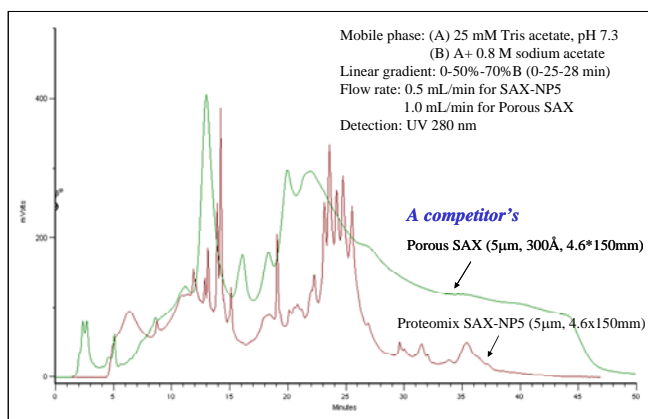


Fig. 2. Separation of a horse serum (20 μL , 2x diluted) from BioWhittaker, a Cambrex company (Walkersville, MD).

Carbohydrates and Glycans

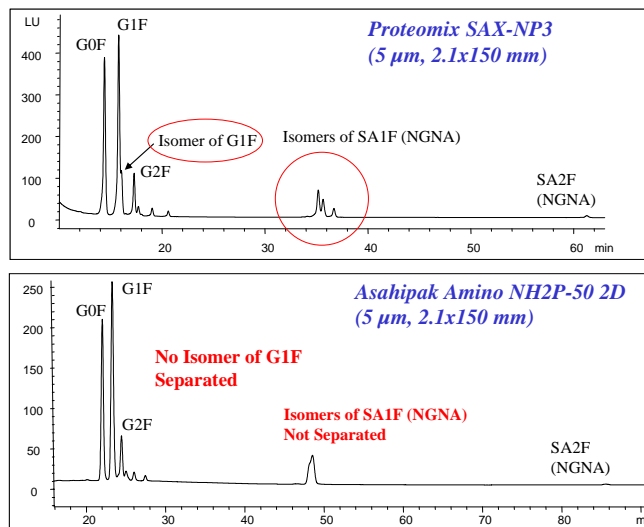


Fig. 2. Separation of 2-AA (anthranilic acid) labeled N-linked oligosaccharide (profiling of an IgG1 sample). A: 2.5% (v/v) acetic acid, 0.5% TEA in H_2O ; B: 0.5% acetic acid in ACN. Gradient 0-100%B (60 min); 0.3 mL/min. Fluorescence detection: Ex/Em=360/425nm

Oligonucleotides

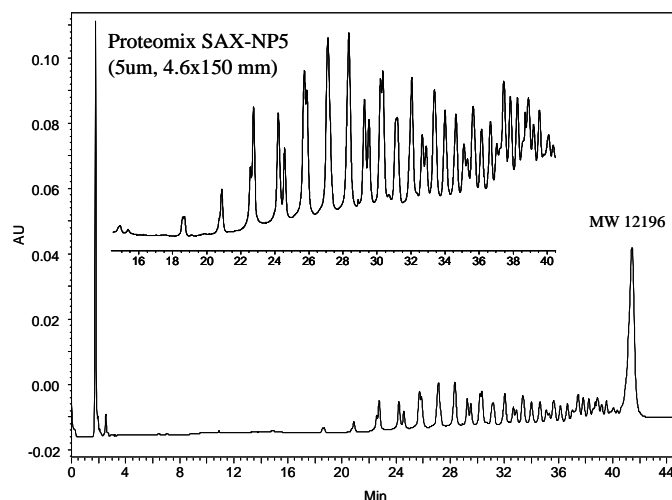


Fig. 3. Separation of an oligonucleotide (MW 12196) and its degraded fragments. Mobile phase: A, 25 mM Tris, 1.0 mM EDTA, 10% ACN (pH 8.0); B, A+1.0 M NaCl. Gradient: 0-75% B in 50 min; Flow rate: 0.5mL/min; Detection: UV 280 nm.

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