Characterizing a Polysaccharide by Aqueous SEC
Agilent PL aquagel-OH 40 8 μm Columns

Technical Overview

Introduction

PL aquagel-OH 40 8 μm high performance columns are ideal for medium molecular weight separations of polysaccharides because they combine high pore volume and high column efficiency for maximum resolution.

A commercial polysaccharide containing residual mono-/disaccharides was analyzed using a two column set to optimize the resolution over the molecular size range of the sample. Calibration was done using Agilent pullulan polysaccharide standards (Figure 1). Figure 2 shows the raw data chromatogram for the sample, and Figure 3 the calculated molecular weight.
Conditions

Columns: 2 x PL aquagel-OH 40 8 µm
   (part number PL1149-6840)
Eluent: 0.05M NaH₂PO₄ + 0.25M NaCl at pH 7
Flow Rate: 1 mL/min
Detector: RI

Figure 1. Calibration curve using pullulan standards

Figure 2. Raw data chromatogram of a commercial polysaccharide

Figure 3. Molecular weight of a commercial polysaccharide (Mp = 82,100; Mn = 55,700; Mw = 85,300; d = 1.53)

These data represent typical results. For further information, contact your local Agilent Sales Office.