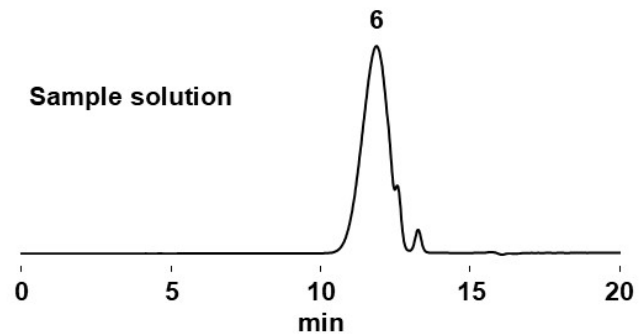
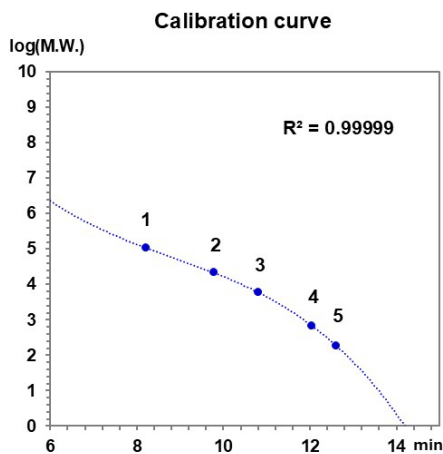


## Analysis of Polydextrose According to USP-NF Method (2) (SB-804 HQ)

Shodex OHpak SB-804 HQ, a column filled with L39 packing material, provides accurate molecular weight determination of polydextrose according to USP-NF 2025 (Issue 1) standards. The system demonstrates baseline separation of dextrose and stachyose from pullulan standards, with an excellent calibration curve correlation ( $R \geq 0.9999$ ), ensuring reliable quality control for polydextrose in pharmaceutical and food applications.

### Sample Preparation:

- Standard solution: USP Dextrose RS, stachyose, and pullulan standards (2 mg/mL each in eluent), injection volume 50  $\mu$ L.
- Sample solution: USP Polydextrose RS (5 mg/mL in eluent), injection volume 50  $\mu$ L.
- Standards included:
- Pullulan (Mp 5,900 – 107,000)
- Stachyose
- Dextrose



### Chromatographic Conditions:

- Column: Shodex OHpak SB-804 HQ (8.0 mm I.D.  $\times$  300 mm)
- Eluent: 0.1 N Sodium nitrate + 0.025% Sodium azide aq.
- Flow rate: 0.8 mL/min
- Detector: RI (35  $^{\circ}$ C)
- Column temp.: 45  $^{\circ}$ C
- Instrumentation: HPLC-SEC with RI detection

**Applications / Industries:**

- **Pharmaceuticals:** Quality control of polydextrose as excipient.
- **Food Industry:** Analysis of polydextrose in dietary products and supplements.
- **Biotechnology & QC Labs:** Monitoring molecular weight of polysaccharides and oligosaccharides.

Polydextrose was successfully separated and quantified. The system suitability requirements were fully met, including baseline separation of standard saccharides and high correlation of the calibration curve. This confirms the method is reliable for polydextrose quality control and molecular weight analysis.