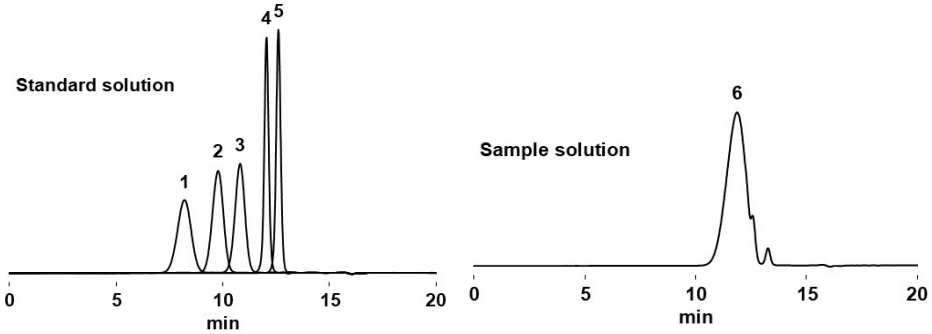
Analysis of Hydrogenated Polydextrose According to USP-NF Method

The Shodex OHpak SB-804 HQ column (L39 packing material) enables precise molecular weight determination of hydrogenated polydextrose, fully compliant with USP-NF 2025 (Issue 1) guidelines. The system demonstrated baseline separation of dextrose and stachyose from pullulan standards, with an excellent calibration curve correlation ($R \geq 0.9999$).

Preparation:

- **Standard solution**: USP Dextrose RS, stachyose, and pullulan standards (2 mg/mL each in eluent), injection volume 50 µL.
- **Sample solution**: USP Hydrogenated Polydextrose RS (5 mg/mL in eluent), injection volume 50 µL.
- **Chromatographic Conditions:**

Column: OHpak SB-804 HQ (8.0 mm I.D. × 300 mm)
Eluent: 0.1 N Sodium nitrate + 0.025% Sodium azide aq.
Flow rate: 0.8 mL/min
Detector: RI (35 ℃)
temp.: 45 ℃



Sample: 50 µL (Standard solution) USP Dextrose RS, stachyose, and pullulan standards 2 mg/mL each in eluent 1. 1.Pullulan (*Mp 107,000) 2. 2.Pullulan (*Mp 21,100) 3. 3.Pullulan (*Mp 5,900) 4. 4.Stachyose 5. 5.Dextrose *Mp: Peak top molecular weight	Sample: 50 µL (Sample solution) USP Hydrogenated Polydextrose RS 5 mg/mL in eluent 1. 6.Hydrogenated polydextrose

This method confirms reliable and accurate analysis of hydrogenated polydextrose following the USP-NF "Molecular Weight Limit" requirements.