

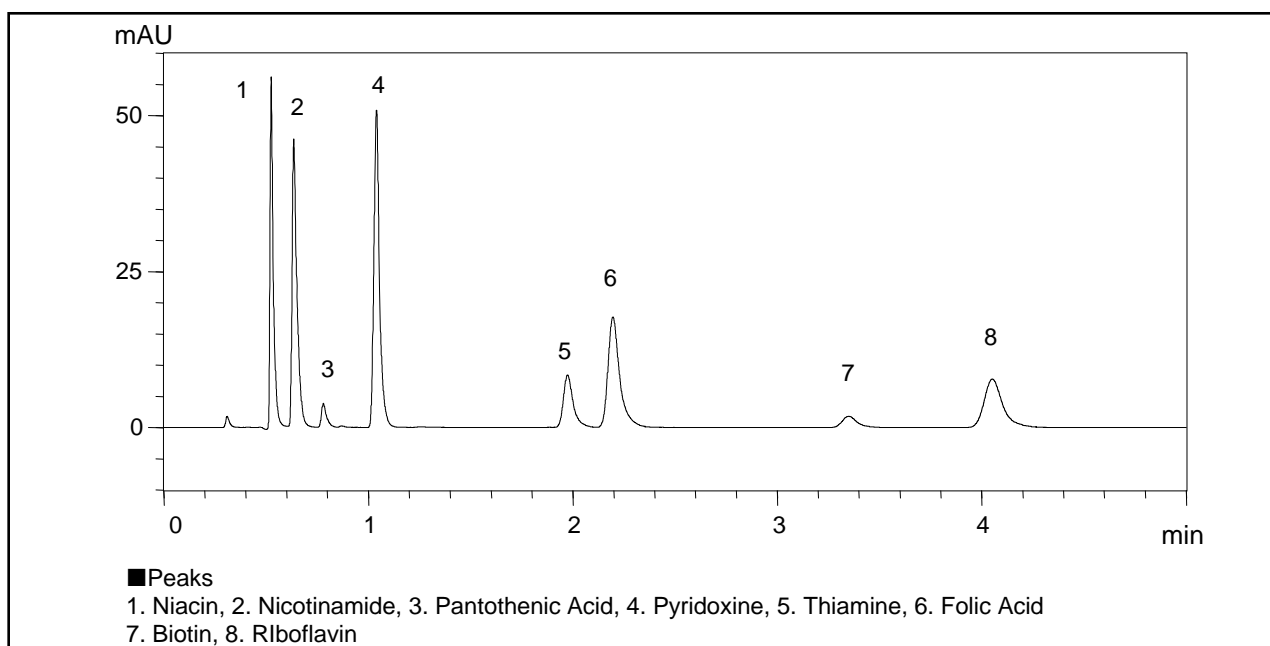
Application Data Sheet

High Performance Liquid Chromatography

No. 70

High-Speed Analysis of Water-Soluble Vitamins

This chromatogram shows results of a high-speed analysis of eight water-soluble vitamins.



Analysis of Water-Soluble Vitamins

[Sample Preparation]

A 100 mg/L solution of Biotin and folic acid solution was prepared by dilution with 1 mmol/L sodium hydroxide.

A 100 mg/L solution of Riboflavin was prepared by dilution with 0.1 N hydrochloric acid.

The Other components were dissolved with 20 mmol/L phosphate buffer solution (pH 2.6) to make a 500 mg/L standard solution.

These solutions were mixed and diluted with 20 mmol/L phosphate buffer solution (pH 2.6) to make a standard mix solution of 20 mg/L.

Analytical Conditions

Instrument	: Prominence UFLC system
Column	: Shim-pack XR-ODS (75 mm × 3.0 mm <i>i.d.</i>)
Mobile Phase	: A) 20 mmol/L (Sodium) phosphate buffer (pH 2.6) containing 5 mmol/L sodium 1-hexanesulfonate B) Acetonitrile A/B = 10/1 (v/v)
Flow Rate	: 1.0 mL/min
Column Temperature	: 40 °C
Detection	: Absorbance at 210 nm with Semi-micro flow cell
Sample Volume	: 2 µL