

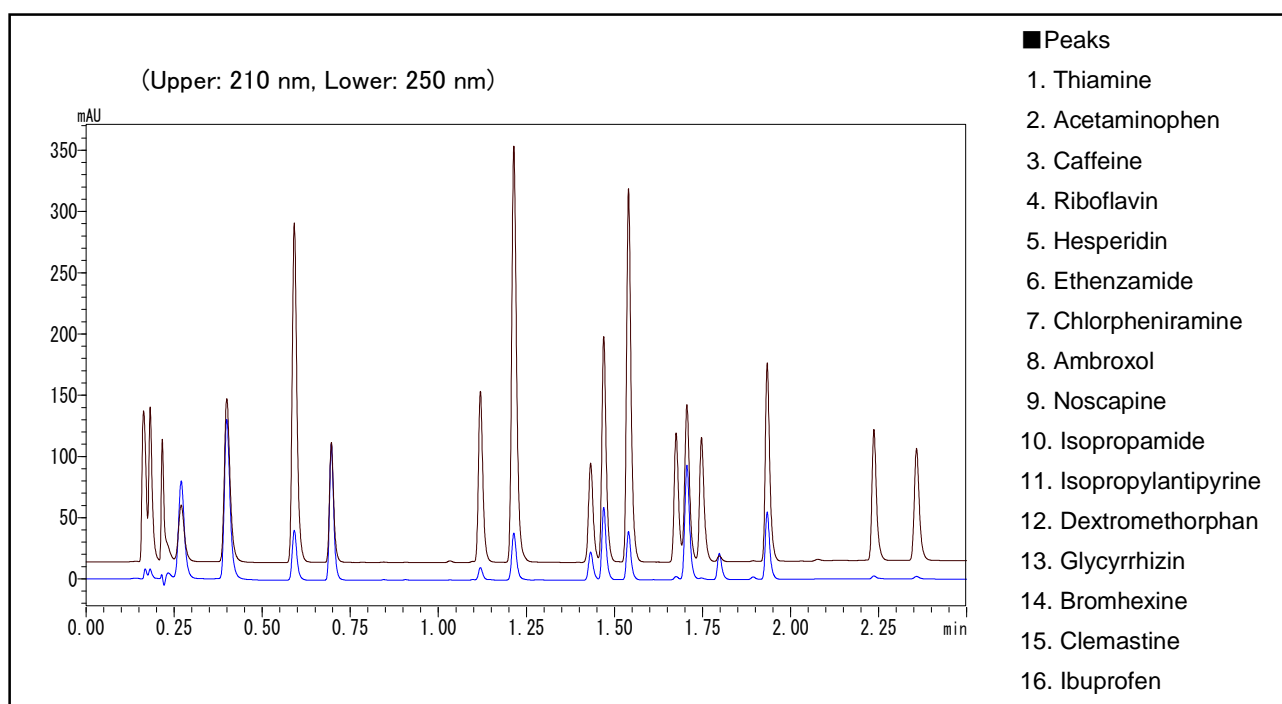
Application Data Sheet

High Performance Liquid Chromatography

No. 59

High Speed Analysis of a Commercial Cold Remedy

Commercial cold remedies contain antipyretic analgesic drugs, antihistaminic drugs, cough suppressant, caffeine, vitamins, herbal extracts, etc. This chromatogram shows a simultaneous analysis of these 16 components.



Analysis of Standard Product for 16 Components

[Sample Preparation]

A 100 mg/L mixed standard sample solution of 16 components (thiamine nitrate, acetaminophen, caffeine, riboflavin, hesperidin, ethenzamide, chlorpheniramine maleate, ambroxol hydrochloride, noscapine, isopropamide iodide, isopropylantipyrine, dextromethorphan hydrobromide monohydrate, glycyrrhizin, bromhexine hydrochloride, clemastine fumarate, and ibuprofen) was prepared by a mixed solvent of mobile phase A / acetonitrile = 1/1 (v/v).

Analytical Conditions

Instrument	: Prominence UFLCXR system
Column	: Shim-pack XR-ODS (50 mm × 3.0 mm <i>i.d.</i>)
Mobile Phase	: A) 20 mmol/L (sodium) phosphate buffer (pH2.5) containing 100 mmol/L sodium perchlorate B) Mobile phase A / Acetonitrile (3 / 7, v/v) B conc.: 15% to 45% (0 min to 1 min), 45% to 90% (1 min to 2 min), 90% (2 min to 2.2 min), 100% (2.21min to 2.6 min), 15% (2.61 min to 3.2 min)
Flow Rate	: 1.4 mL/min
Column Temperature	: 40°C
Detection	: Absorbance at 210 nm and 250 nm with semi-micro flow cell
Sample Volume	: 1 µL