

Application Data Sheet

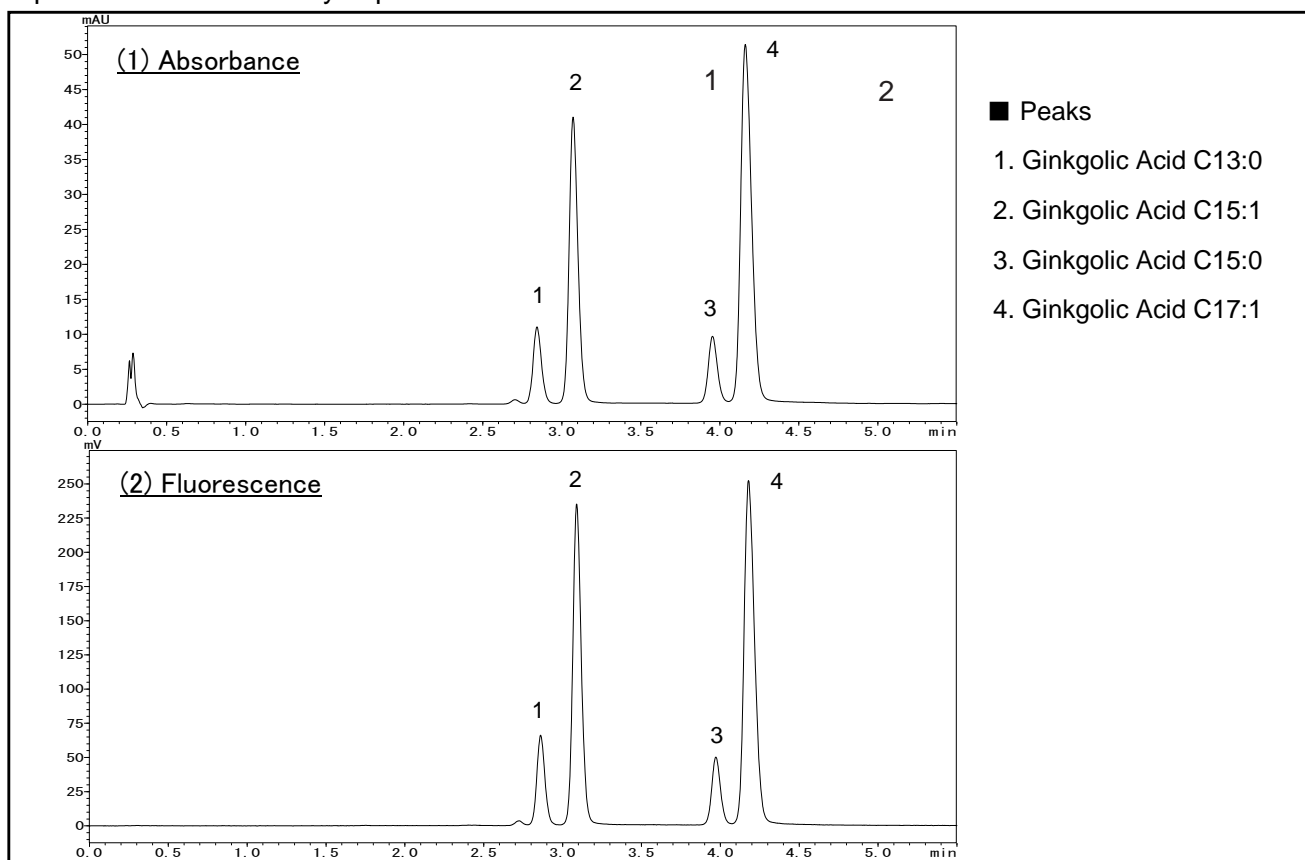
High Performance Liquid Chromatography

No. 76

High Speed Analysis of Ginkgolic Acids

Ginkgo leaves contain ginkgolic acid of alkylphenols that can potentially cause allergies. Here we present an example of high speed analysis using the absorbance of ginkgolic acid and fluorescence detection.

Generally, fluorescence detection has the advantages of high selectivity and less likelihood that the actual sample will be influenced by impurities.



Analysis of a Standard Solution Mixture of 4 Ginkgolic Acid Components

[Sample Preparation]

Ginkgolic acid C13:0 and ginkgolic acid C15:0 were prepared to a concentration of 20 mg/L, ginkgolic acid C15:1 was prepared to a concentration of 80 mg/L, and ginkgolic acid C17:1 was prepared to a concentration of 120 mg/L using a methanol/water sample solvent of 5/5 (v/v).

Analytical Conditions

Instrument	: Prominence UFLC system
Column	: Shim-pack XR-C8 (75 mm L. × 3.0 mm I.D.)
Mobile Phase	: A) 0.01% Formic Acid - Water B) 0.01% Formic Acid - Acetonitrile B conc; 70%-85% (0-4.0 min), 85 % (4.0-5.0 min), 70% (5.01-6.5 min)
Flow Rate	: 1.0 mL/min
Column Temperature	: 35 °C
Detection	: (1) Absorbance at 311 nm with Semi-micro flow cell (2) Fluorescence Ex. at 290 nm, Em. at 407 nm with Semi-micro flow cell
Sample Volume	: 10 µL