

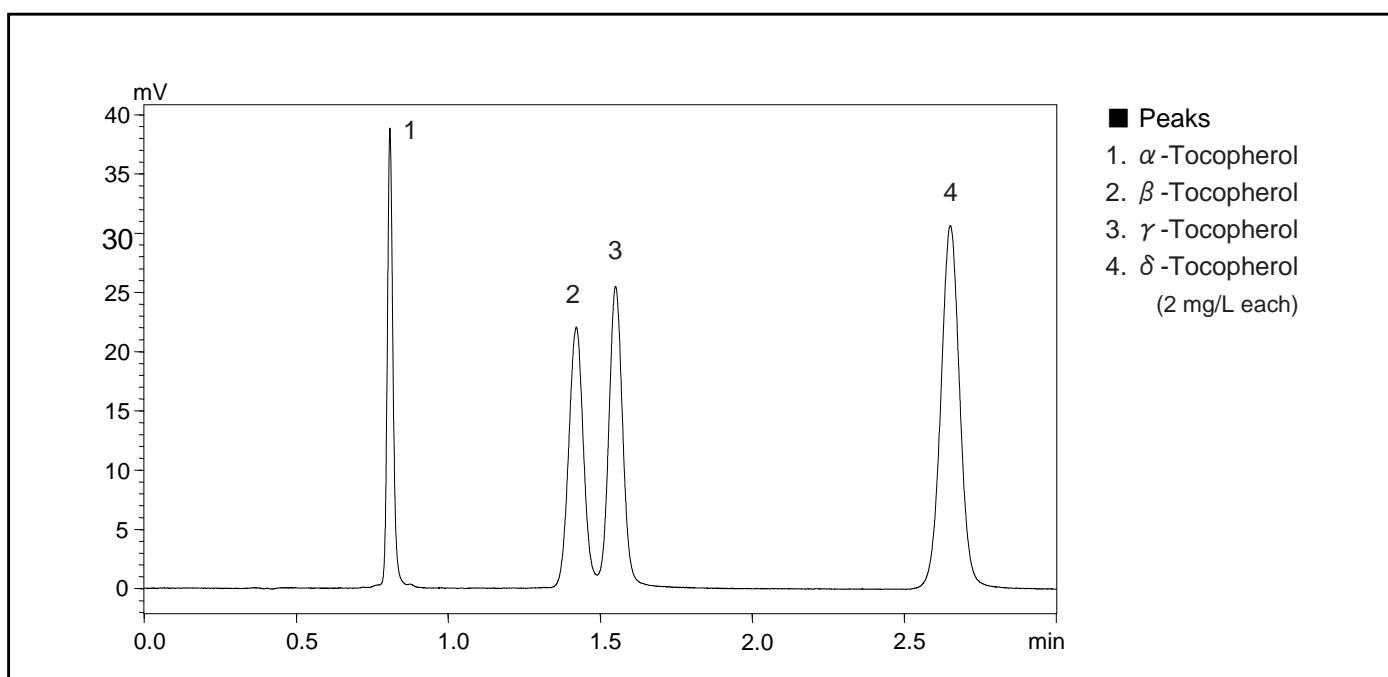
Application Data Sheet

High Performance Liquid Chromatography

No. 75

High Speed Analysis of Tocopherol

Tocopherol (vitamin E) is not only used as a food additive in antioxidants and nutritional supplements, but it is also a nutrient contained in natural food materials. α -, β -, γ -, and δ -tocopherols are widely known. Here we present an example of high speed analysis of tocopherol.



Analysis of Tocopherol Isomers

[Sample Preparation]

A 2 mg/L concentration solution was prepared using n-hexane after adding 2-propanol to each vial of the tocopherol standard sample set (50 mg for each component).

Analytical Conditions

Instrument	: Prominence UFLC system
Column	: Shim-pack XR-ODS (75 mm L. × 3.0 mm I.D.)
Mobile Phase	: A) Water B) Acetonitrile B conc; 30 % (0 min) → 90 % (2.10 min) → 90 % (2.50 min) → 100 % (2.51 min) → 100 % (3.50 min) → 30 % (3.51 min)
Flow Rate	: 1.0 mL/min
Column Temperature	: 40 °C
Detection	: Absorbance at 280 nm with Semi-micro flow cell
Sample Volume	: 2 μ L

* Dehydration processing by anhydrous sodium sulfate