

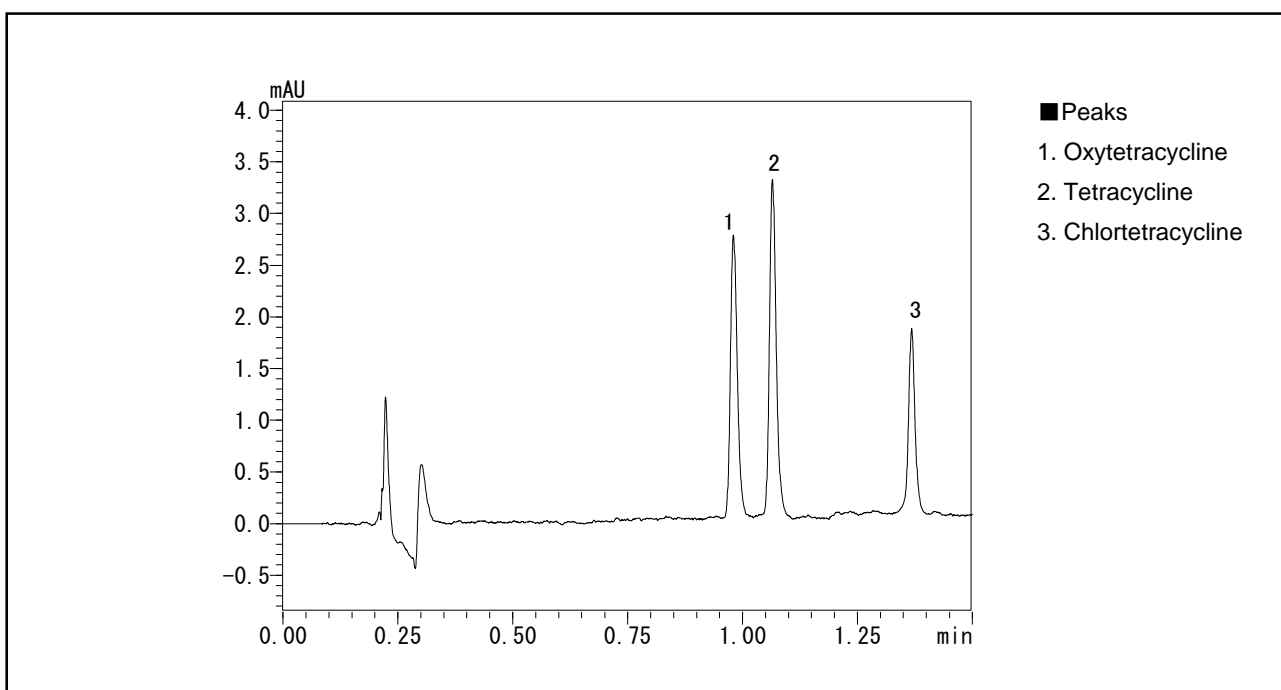
Application Data Sheet

High Performance Liquid Chromatography

No. 52

High-Speed Analysis of Tetracyclines

Tetracyclines are one type of antibiotics and are widely used as drugs for animals. Here we present a UFLC-UV separation of 3 components, oxytetracycline, tetracycline, and chlortetracycline.



Analysis of Tetracyclines

[Sample Preparation]

A 1 µg/mL concentration solution of each standard sample was prepared using a mixed solution of methanol and 10mmol/L oxalic acid aqueous solution (3:2 v/v).

Analytical Conditions

Instrument	: Prominence UFLC system
Column	: Shim-pack XR-ODS (50 mm × 3.0 mm <i>i.d.</i>)
Mobile Phase	: A) 10mmol/L oxalic acid aq. B) 10mmol/L oxalic acid aq. / acetonitrile (1/1 v/v) B.conc; 18% to 60% (0 to 1.0 min), 18% (1.01 to 2.0 min)
Flow Rate	: 1.2 mL/min
Column Temperature	: 40 °C
Detection	: Absorbance at 360 nm (Ref. Correction 450nm) with semi-micro flow cell
Sample Volume	: 5 µL