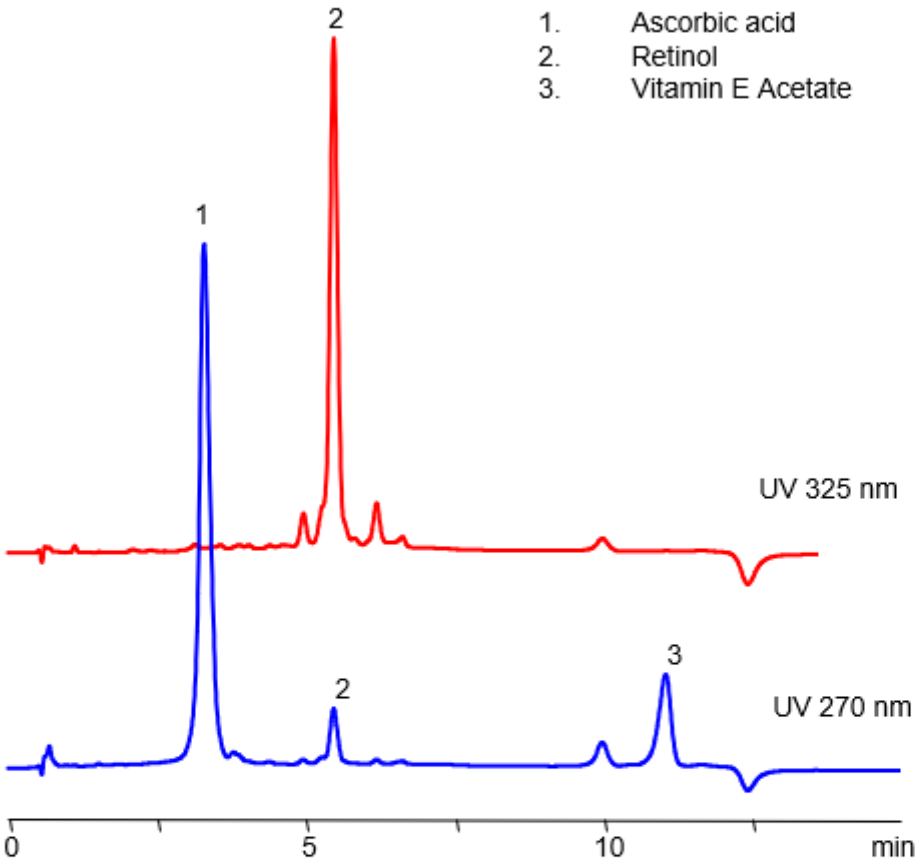
HPLC Analysis of Ascorbic Acid, Retinol (Vitamin A) and Vitamin E acetate in ACE Serum Active Ingredients

https://sielc.com/Application-HPLC-Analysis-of-ACE-Serum-Active-Ingredients

Chromatogram



Column:	Primesep SB
Size:	50 x 3.0 mm
Mobile phase:	MeCN gradient 50-80%, 5 min, 7 min hold
Buffer:	Acetic acid -0.1
Flow:	0.5 mL/min
Detection:	UV 270, 325 nm

Description

Mixed-mode HPLC columns allow for separation of compounds with drastically different properties. In this application, highly hydrophilic ascorbic acid is retained and separated from highly hydrophobic retinol (Vitamin A) and Vitamin E Acetate. Ascorbic acid is retained by anion-exchange mechanism and hydrophobic compounds are retained by reversed-phase mechanism. Compounds are monitored by UV detection. Mobile phase is compatible with LC/MS and method can be used to monitor basic and acidic compounds in bio-fluids (serum, blood, urine, saliva, etc.) Retinol (Vitamin A) and Vitamin E Acetate

Method Parameters

Mobile Phase	MeCN/H2O
Buffer	Acetic Acid
Flow Rate	0.5 ml/min
Detection	UV 270, 325
Class of Compounds	Acid, Vitamin B■, Hydrophobic, Ionizable
Analyzing Compounds	Ascorbic acid (Vitamin C), Retinol (Vitamin A) and Vitamin E Acetate

HPLC Column Used

Primesep SB , 3.0×50 mm, 5 µm, 100A