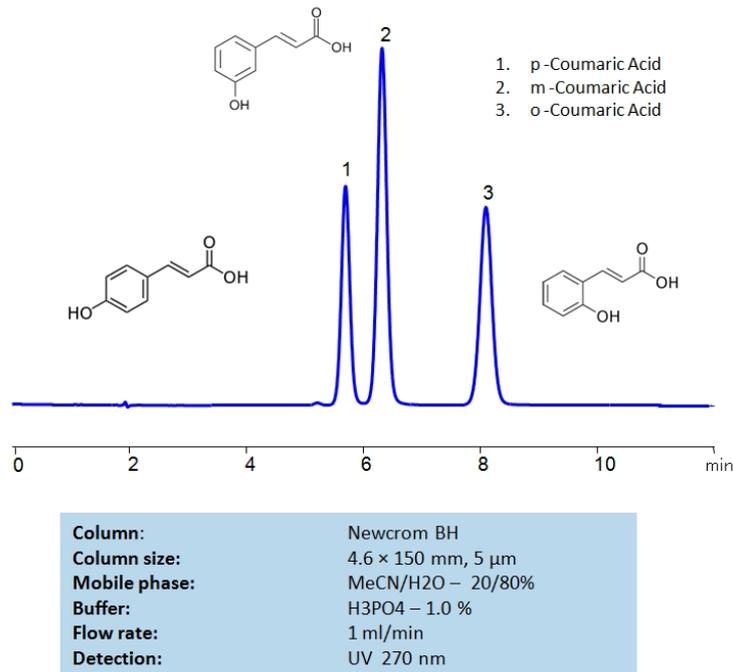


HPLC Separation of Coumaric acids on Newcrom BH Column



High Performance Liquid Chromatography (HPLC) Method for Analysis of m-Coumaric acid , o-coumaric acid , p-coumaric acid .

p -Coumaric acid is a major phenolic acid with the chemical formula C₉H₈O₃ . It can be found in a wide variety of graminaceous plants. p -Coumaric acid is a natural metabolite contained in many edible plants and its antioxidant activities in reducing oxidative stress and inflammatory reactions have been demonstrated in various experiments.

m -Coumaric acid is a hydroxycinnamic acid with the chemical formula C₉H₈O₃ . It can be found in a vinegar. It differs from p -Coumaric acid in the position of the hydroxy substitution.

o -Coumaric acid is a hydroxycinnamic acid with the chemical formula C₉H₈O₃ . It can be found in a vinegar. It differs from p -Coumaric acid and m-Coumaric acid in the position of the hydroxy substitution.

The three isomers of coumaric acid, m-Coumaric acid , o-coumaric acid , p-coumaric acid , can be detected at low UV. Using Newcrom BH mixed-mode column and a mobile phase consisting of acetonitrile (ACN), and water with phosphoric acid (H₃PO₄) buffer, the acids can be retained and UV detected at 270 nm.

Method Parameters

Column	Newcrom BH, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN/H ₂ O – 20/80%
Buffer	H ₃ PO ₄ – 1.0%
Flow Rate	1.0 mL/min
Detection	270 nm

Quelle: <https://sielc.com/hplc-separation-of-coumaric-acids-on-newcrom-bh-column>