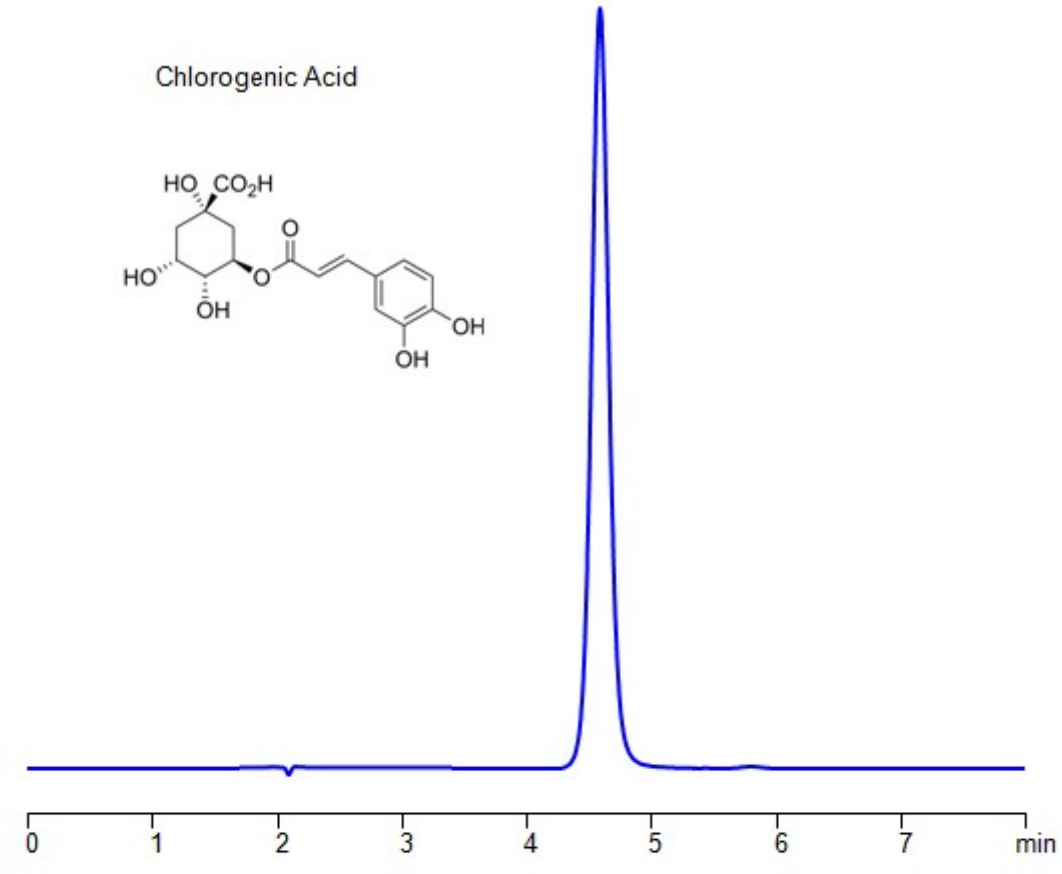
HPLC Method for Analysis of Chlorogenic Acid on Newcrom BH Column

https://sielc.com/hplc-determination-of-chlorogenic-acid

Chromatogram



Column:	Newcrom BH
Column size:	4.6 × 150 mm, 5 µm
Column part number:	NBH-46.150.0510
Mobile phase:	MeCN/H_2O – 10/90%
Buffer:	H_2SO_4 – 0.1%
Flow rate:	1.0 ml/min
Detection:	UV - Vis 325 nm
Injection Volume:	2 µL
Sample:	1 mg/ml
Diluent:	MeCN/H2O – 50/50%
LOD:	52 ppb

Description

· HPLC Method for Analysis of Chlorogenic acid on Newcrom BH Column by SIELC Technologies

Chlorogenic acid is a natural compound with the chemical formula C 16 H 18 O 9 . It belongs to the polyphenol family, which is abundant in various plants. It is particularly prevalent in coffee beans, fruits, vegetables, and whole grains. One of its primary dietary sources is coffee, where it is found in significant amounts. It is well known for it’s antioxidant properties, which means it can help neutralize free radicals in the body. Free radicals are molecules that can damage cells and contribute to aging and

various diseases. Evidence suggests that chlorogenic acid may have a positive impact on blood sugar levels. It may help regulate glucose metabolism, making it of interest in managing diabetes and insulin resistance. Research suggests that chlorogenic acid may have several potential health benefits, including improving heart health by reducing blood pressure and improving blood vessel function. It may also have anti-inflammatory effects. You can find detailed UV spectra of Chlorogenic acid and information about its various lambda maxima by visiting the following link.

Chlorogenic acid can be retained and analyzed on a reversed-phase Newcrom BH column with a mobile phase consisting of water, Acetonitrile (MeCN), and sulfuric acid. This analytical method can be detected with high resolution and peak symmetry at a wavelength of 220 nm using UV detection

Method Parameters

Mobile Phase	MeCN/H2O – 10/90%
Buffer	H2SO4 – 0.1%
Flow Rate	1.0 ml/min
Detection	UV Vis 325 nm
Injection volume:	2 µL
Sample	1 mg/ml
Sample Diluent	MeCN/H2O – 50/50%
Class of Compounds	Acid
Analyzing Compounds	Chlorogenic acid

HPLC Column Used

Newcrom BH, 4.6 x 150 mm, 5 µm, 100 A, dual ended

Order this column at hplc-shop.de →