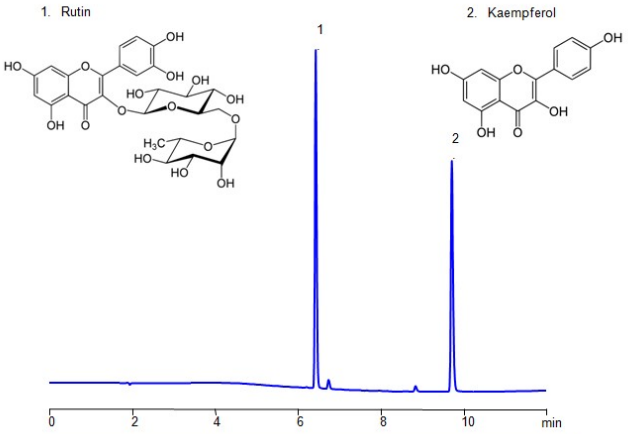
HPLC Method for Separation of Rutin and Kaempferol on Newcrom R1 Column



Column:	Newcrom R1
Column size:	4.6 × 150 mm, 5 µm, 100A
Column part number:	NR1-46.150.0510
Mobile phase:	Gradient MeCN 10% - 80% in 10 min, with 2 min hold
Buffer:	H_2SO_4 – 0.1%
Flow rate:	1.0 mL/min
Detection:	UV 265 nm
Injection volume:	5.0 µL
Sample:	1. 0.5 mg/ml 2. 0.5 mg/ml
Sample Diluent:	MeCN/H2O – 50/50%
LOD:	1. 9 ppb 2. 14 ppb

Separation type: Liquid Chromatography Reversed-phase

Rutin and kaempferol are both natural compounds found in various plants, particularly in fruits and vegetables. They belong to the class of flavonoids, which are a group of polyphenolic compounds known for their antioxidant properties and potential health benefits.

Both rutin and kaempferol are considered bioactive compounds, and their presence in a balanced diet rich in fruits and vegetables is associated with potential health benefits.

Rutin and kaempferolcan be retained, separated and analyzed on a reversed-phase Newcrom R1 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 265 nm using UV detection

Method Parameters

Column	Newcrom R1, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	Gradient MeCN – 10-90%,10 min , 5 min hold
Buffer	H2SO4 – 0.1%
Flow Rate	1.0 mL/min
Detection	UV 265 nm
Sample	1. 0.5 mg/ml 2. 0.5 mg/ml
Injection Volume	5.0 µL

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Quelle: https://sielc.com/hplc-determination-of-rutin-and-kaempferol

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