

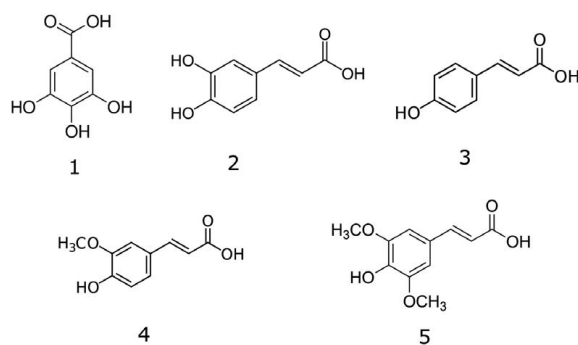
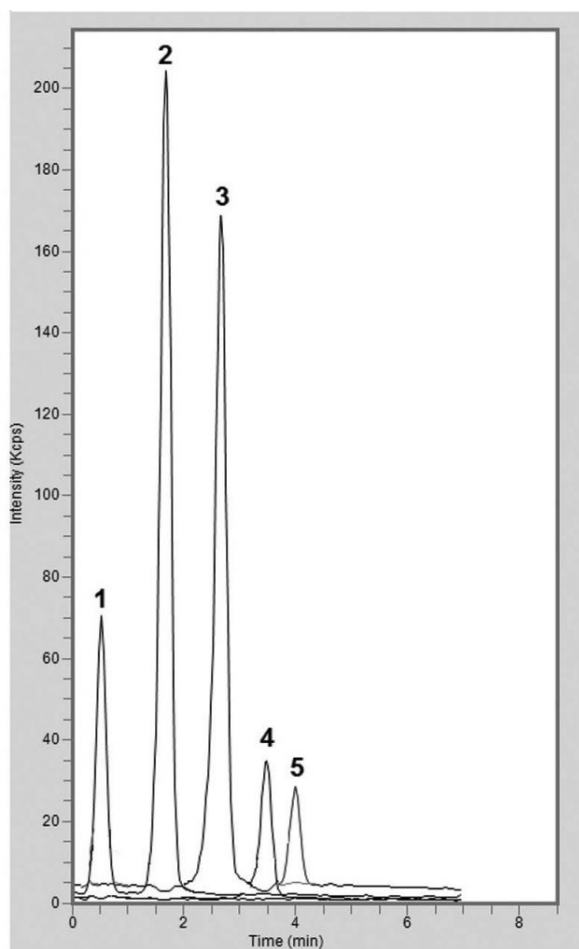
Rice Extract Analyzed with LCMS – AppNote

Content of Phenolic Compounds in Rice Determined by LCMS

Click [HERE](#) for Column Ordering Information.

When commercial Rice Extracts were analyzed, only 6'-O-Feruloylsucrose at 3.01 minutes (Peak not shown for the clarity of the Chromatogram) was found in this particular Rice Extract Sample. Next, the Sample was spiked with the Standards according to the literature referenced below [1].

This Method is an excellent choice to use for this analysis of these Phenolic Compounds.



Peaks:

1. Gallic Acid 169 m/z [M-H]⁻

2. Caffeic Acid 179 m/z [M-H]⁻
3. p-Coumaric Acid 163 m/z [M-H]⁻
4. Ferulic Acid 193 m/z [M-H]⁻
5. 3,5-Dimethoxy-4-Hydroxycinnamic Acid 223 m/z [M-H]⁻

Method Conditions

Column: Cogent Phenyl Hydride™, 4μm, 100Å

Catalog No.: 69020-05P-2

Dimensions: 2.1 x 50mm

Mobile Phase:

A: DI Water / 0.1% Formic Acid (v/v)

B: Acetonitrile / 0.1% Formic Acid (v/v)

Gradient:

Time (minutes)	%B
0	10
5	20
6	20
7	10

Post Time: 3 minutes

Injection vol.: 1μL

Flow rate: 0.4mL / minute

Detection: ESI - NEG - Perkin Elmer, Flexar SQ 300 Mass Spectrometer

Sample Preparation: Commercial Rice Extract was spiked with standards at a concentration of 12.5 ppm and was analyzed.

Note: Rice is a staple food in many countries. It contains phenolic compounds which have anticancer, antioxidant, and anti-mutagenic effects. It is important to analyze Rice Extracts to confirm the content of the phenolic compounds in rice.

[1] J.E. Hayes, P. Allen, N. Brunton, M.N. O'Grady, and J.P. Kerry, Food Chemistry, 126, (2011) 948-955.



Attachment

No 287 Rice Extracts Analyzed with LCMS pdf 0.3 Mb [Download File](#)

Printed from the Chrom Resource Center

MicroSolv Technology Corporation

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: customers@mtc-usa.com

Website: www.mtc-usa.com

Date: 04-05-2024