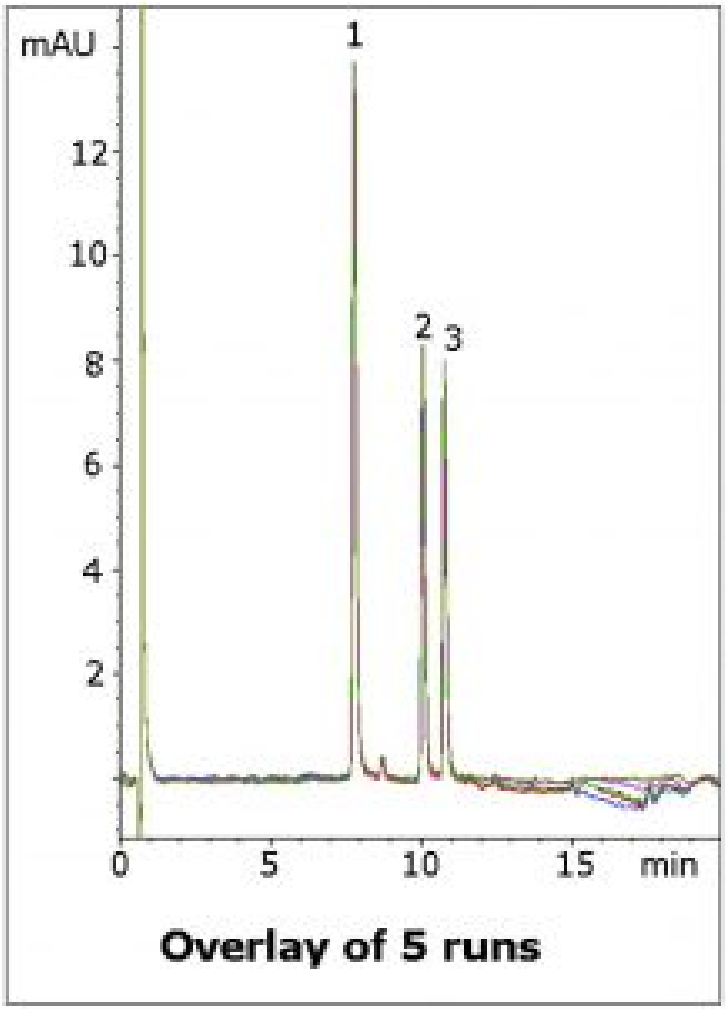
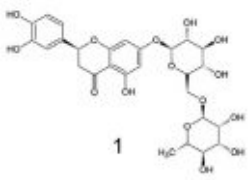
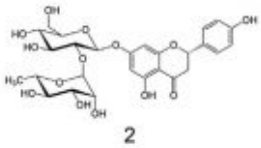
Glycosidic Flavonoids Analyzed with HPLC – AppNote

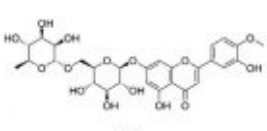
Separation of Diosmin, Eriocitrin, and Naringin

In this method, three Glycosidic flavonoid standards are separated with good resolution. The Cogent Bidentate C18 2.o™ Column produces high efficiency peaks with reproducible retention (see figure overlay). Separation is also observed for a small impurity peak, eluting between peaks 1 and 2. This separation of standards could be applied to more complex samples such as citrus fruit extracts.









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

Peaks:

1. Eriocitrin
2. Naringin
3. Diosmin

Method Conditions

Column: Cogent Bidentate C18 2.o™, 2.2µm, 120Å

Catalog No.: 40218-05P-2

Dimensions: 2.1 x 50 mm

Mobile Phase:

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

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

Gradient:

Time (minutes)	%B
0-1	10
15	30
16	30
17	10

Post Time: 3 minutes

Injection vol.: 0.2µL

Flow rate: 0.3mL/minute

Detection: UV @ 254 nm

Sample Preparation:

Stock Solutions: 1.0mg/mL Diosmin in DMSO diluent
1.0mg/mL Naringin in 1:1 DMSO : MeOH diluent
1.0mg/mL Eriocitrin in 1:1 DMSO : MeOH diluent.

Mixture: 0.02 mg/mL Diosmin,
0.7 mg/mL Eriocitrin,
0.2 mg/mL Naringin in 1:1 DMSO: MeOH diluent.

Note: *Flavonoids are an important class of compounds found in citrus fruits. They have been shown to have anti-inflammatory, anti-allergic, anti-carcinogenic, antihypertensive and antiarthritic activities. Therefore, there is a need for a reliable HPLC method for their separation and quantitation.*

Attachment

MicroSolv Technology Corporation
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