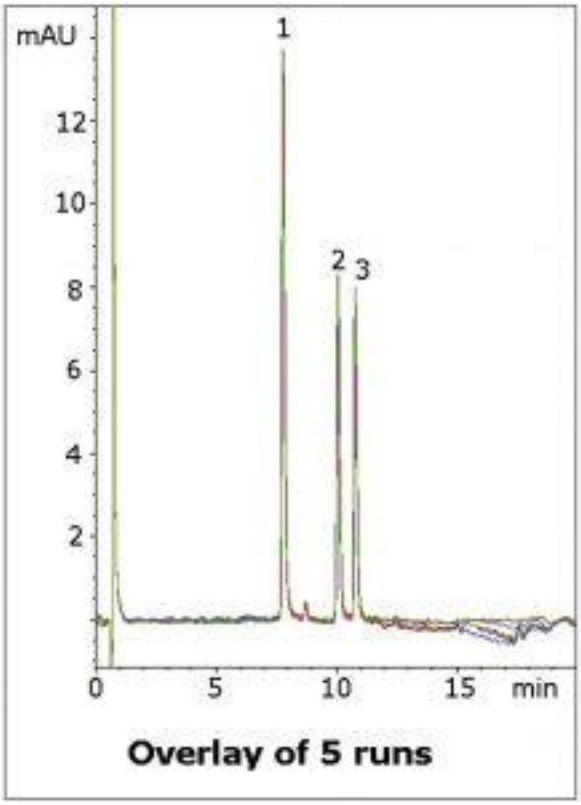
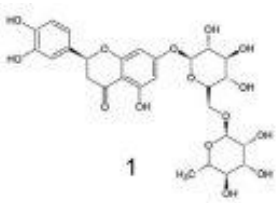
Diosmin, Eriocitrin and Naringin Glycosidic Flavonoids Analyzed with HPLC - AppNote

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.

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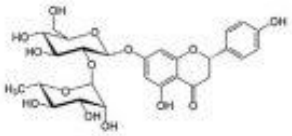
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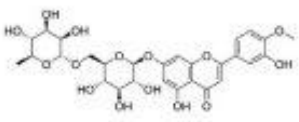
3

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.*

COGENT HPLC Columns™

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