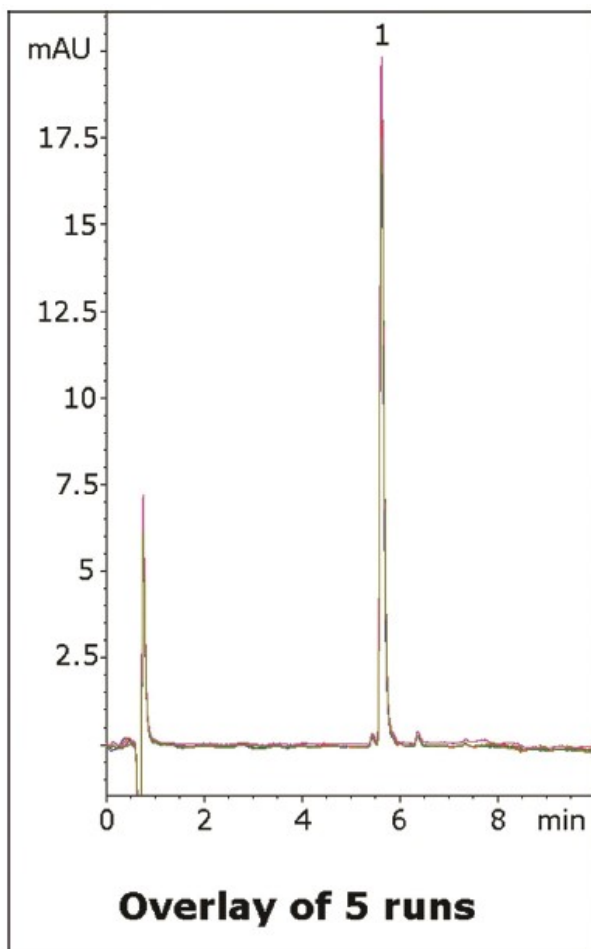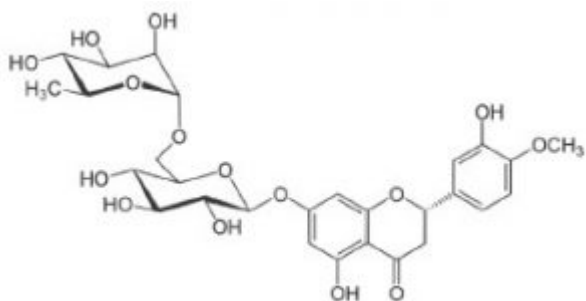# Hesperidin Analyzed with HPLC – AppNote

LC-MS compatible method

This method for analysis of Hesperidin produces an excellent analyte peak and shows separation from what appears to be two impurity peaks. The gradient method is LC-MS compatible and can be applied to many types of Hesperidin-containing samples such as citrus fruit extracts. The overlay of five runs shown in the figure illustrates the run-to-run reproducibility of the data.

Overlay of 5 runs

Peak:

Hesperidin

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	10
1	10
9	70
10	10

Post Time: 5 minutes
Injection vol.: 1µL
Flow rate: 0.3mL/minute
Detection: UV @ 285nm
Sample: 100 ppm Hesperidin reference standard in 1:1 DMSO: Methanol diluent
t0: 0.6 minutes

Note: Hesperidin is a naturally occurring glycoside polyphenol that is thought to have antioxidant properties. Studies suggest it may have a number of pharmaceutical applications due to possible anti-inflammatory, anti-cancer, and cholesterol and blood pressure lowering effects. Its name comes from the word "hesperidium", which is the type of fruit produced by citrus trees.

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