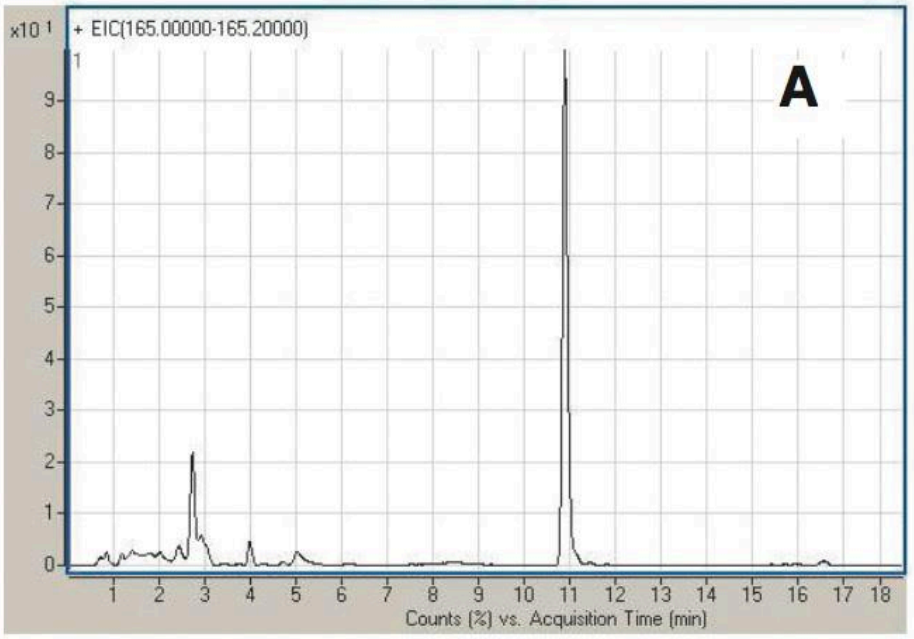
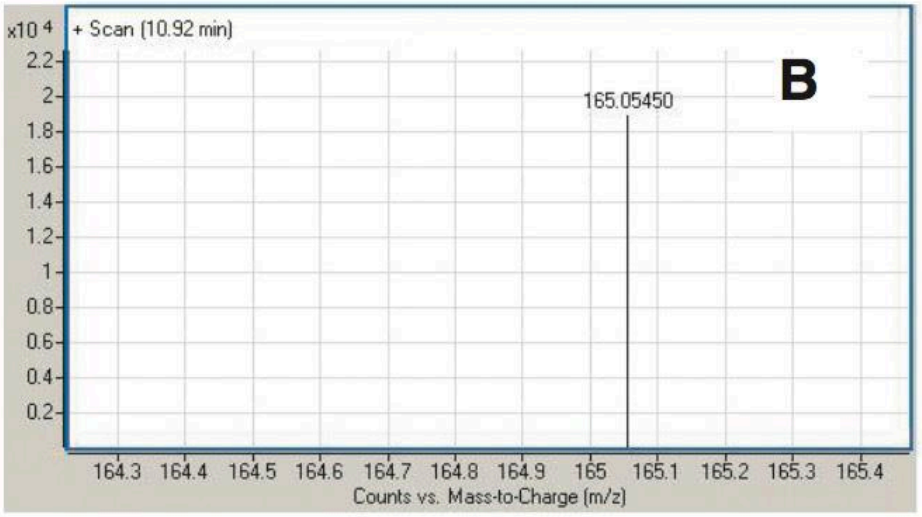
Trans-3-Hydroxycinnamic Acid in Human Urine with LCMS - AppNote

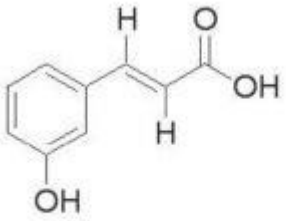
Separation of Antioxidants by HPLC with LCMS

Polar metabolites are reproducibly retained using an MS friendly Mobile Phase in Aqueous Normal Phase (ANP) HPLC. The sample preparation required is very easy and cost effective compared to previous, older Methods. The sample is diluted with the Reversed Phase Solvents and ready to inject in 5-10 minutes.

With this Method, investigating Metabolite Excretion of laboratory animals or determining endogenous urinary Biomarkers or working on Phenolic composition of plant extracts is simple and easy.







trans-3-Hydroxycinnamic acid

Peak:

Trans-3-hydroxycinnamic acid 165.05405 m/z (M+H)+

Method Conditions

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

Catalog No.: 70000-15P-2

Dimensions: 2.1 x 150mm

Mobile Phase:

A: DI Water with 0.1% Formic Acid

B: Acetonitrile with 0.1% Formic Acid

Gradient:

Time *(minutes)*	%B
0	95

0.2	95
12	75
13	75
13.1	50
14	50
14.1	95
20	95

Flow rate: 0.4mL / minute
Detection: ESI – pos - Agilent 6210 MSD TOF Mass Spectrometer
Sample Preparation: Human urine – after simple Extraction
t_0: 1.44 minutes

***Notes**: Hydroxycinnamic acids exhibit antioxidative activity and are present in plants. It is important to determine the antioxidant capacity of plant extracts by measuring the concentration levels of Hydroxycinnamic acids before and after enzymatic treatments. The determination of the concentration of 3HCA is essential when determining protective effects against free radical- induced damage.*

COGENT HPLC Columns™

Attachment

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