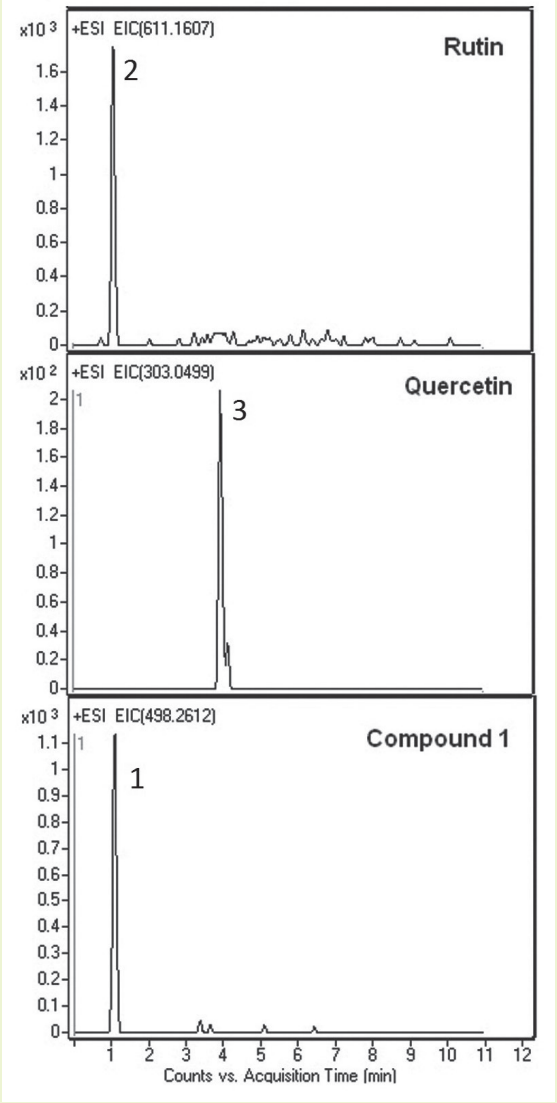
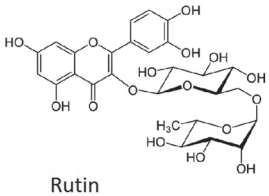
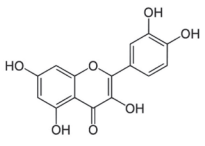
Brazilian Tree Bark Analysis by LC-MS

Quercetin, rutin, and compound 1





Rutin



Quercetin

Note: Preliminary research suggests that quercetin may have antiviral, anti-cancer, and anti-inflammatory properties. Likewise, rutin has been reputed to have health benefits as well such as anti-oxidant properties, lowered risk of heart attack or stroke, and others.

Method Conditions

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

Catalog No.: 70000-15P-2

Dimensions: 2.1 x 150 mm

Mobile Phase: A: DI H_2O / 0.1% formic acid
B: Acetonitrile / 0.1% formic acid (v/v)

Gradient:

time (min.)	%B
0	80
1	10
5	10
6	80

Post Time: 3 min

Injection vol.: 1 microL

Flow rate: 0.4 mL/min

Detection: ESI – POS - Agilent 6210 MSD TOF mass spectrometer

Sample: Two pieces of bark were boiled for 5 min in DI H_2O and then filtered with a 0.45µm nylon syringe filter (MicroSolv Tech Corp.).

Peaks: 1. Compound 1
(6-beta-O-2',3'-dihydrocinamonyl-12-hydroxy-(13)
15-en-16,12-olide-18-cassaneoic acid) m/z 498.2612 $[M + H]^+$
2. Rutin m/z 611.1607 $[M + H]^+$
3. Quercetin m/z 303.0499 $[M + H]^+$

t_0: 0.9 min

Discussion

Over one quarter of natural medicines have been discovered in rainforests, and therefore analytical study of the indigenous flora and fauna is necessary. The Amazonian rainforest in Brazil is the most biodiverse region in the world. Here a Brazilian tree bark extract *(Brownea grandiceps)* is analyzed by LC-MS and three compounds were identified in the EICs. The Cogent Diamond Hydride column is well-suited to analyses such as this.

MANUFACTURED BY:
MICROSOLV TECHNOLOGY CORPORATION
9158 Industrial Blvd NE
Leland, NC 28451
p: 1.732.380.8900
f: 1.910.769.9435
customers@mtc-usa.com
www.Cogent-HPLC.com