

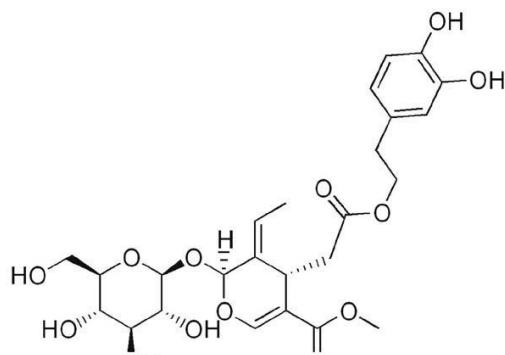
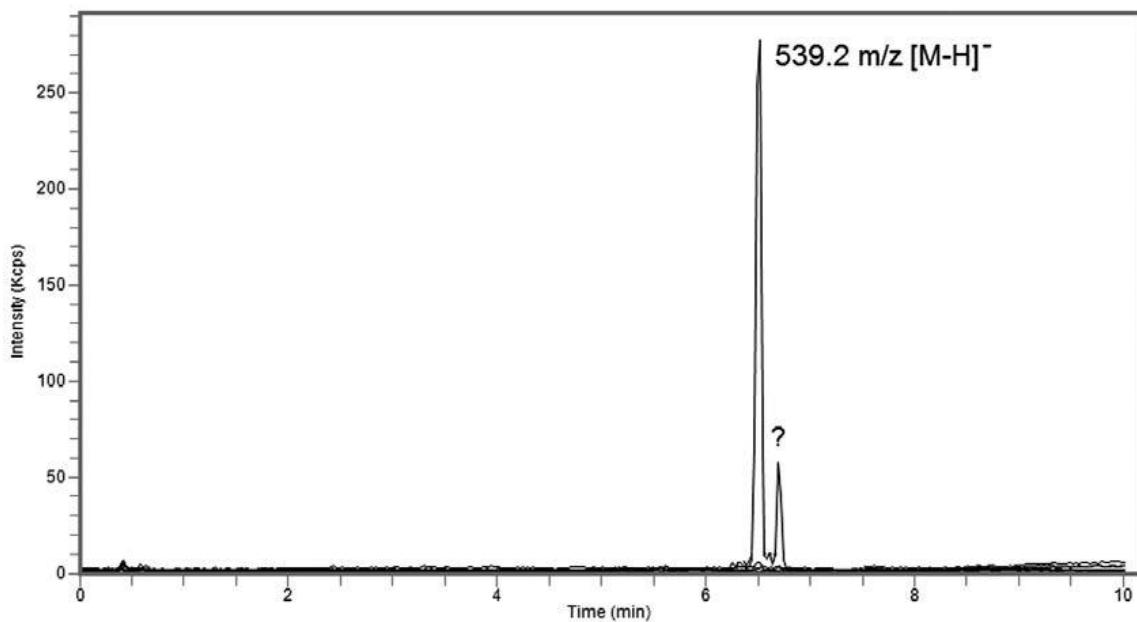


## Oleuropein in Olive Leaves Extract Analyzed with LCMS - AppNote

### High Efficiency Using a near-UHPLC Column for Oleuropein

In this Application Note, the Analyte Peak is symmetrical and well Retained while the results were very reproducible ( $\%RSD = 0.06$  for Retention Times). This Method can be used to analyze and evaluate the extraction of Olive Leaves.

According to the literature, Olive Leave Extracts should contain the following compounds: Oleuropein, Hydroxytyrosol, Verbascoside, Apigenin, Luteolin-7-O-Glucoside, and Tyrosol [1].



Oleuropein

#### Peak:

Oleuropein 539.2 m/z [M-H]<sup>-</sup>

### Method Conditions

Column: Cogent Bidentate C18 2.0, 2.2 $\mu$ m, 120 $\text{\AA}$

**Catalog No.:** [40218-05P-2](#)

**Dimensions:** 2.1 x 50mm

**Mobile Phase:**

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

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

**Gradient:**

Time (minutes)	%B
0	5
3	15
4	15
6	30
7	30
11	95
14	95
15	5

**Post Time:** 3 minutes

**Injection vol.:** 1 $\mu$ L

**Flow rate:** 0.3mL / minutes

**Detection:** ESI – NEG - PerkinElmer Flexar SQ 300 Mass Spectrometer

**Sample Preparation:** Commercial Olive Leaves Extract was dissolved in DI Water at a concentration 10ppm.

**t<sub>0</sub>:** 0.6 minutes.

**Note:** Olive Leaves are food byproducts (after pruning of Olive Trees) which are full of bioactive compounds. These compounds are potent polyphenols, which show antibacterial, antiviral, anti-cancer, anti-inflammatory, and antioxidant activities. Different extraction procedures are used for selective extraction of polyphenols from olive leaves. An analytical method to monitor and evaluate the resulting extract is needed.

[1] J.E. Hayes, P. Allen, N. Brunton, M.N. O'Grady, and J.P. Kerry, *Food Chemistry*, 126, (2011) 948–955.



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