

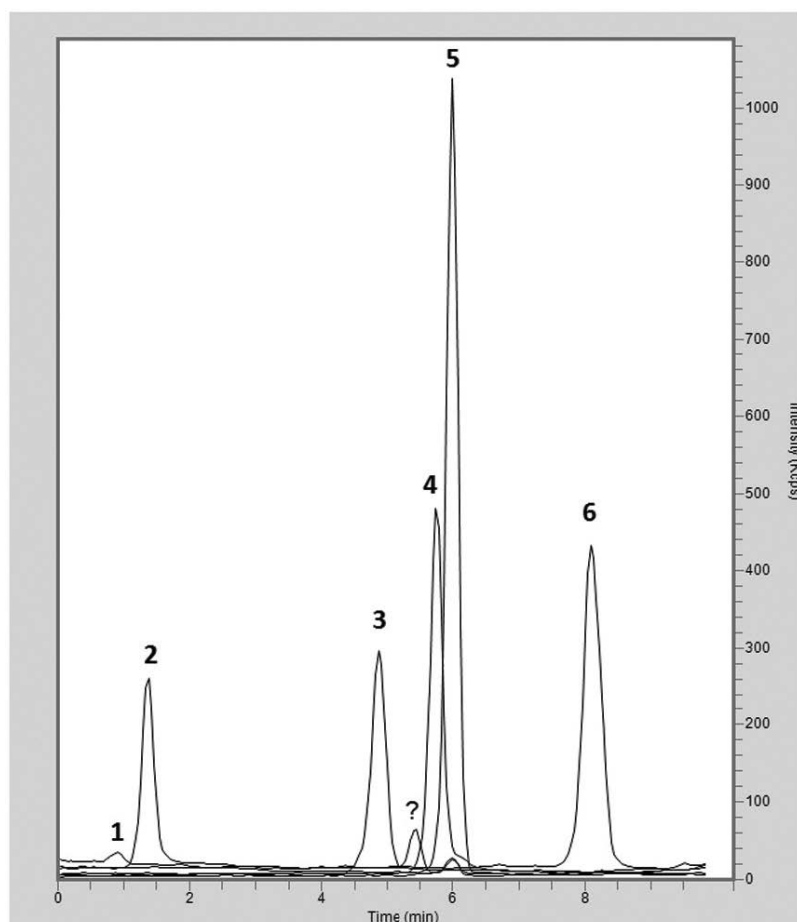
## Phenolic Compound Determination with LCMS – AppNote

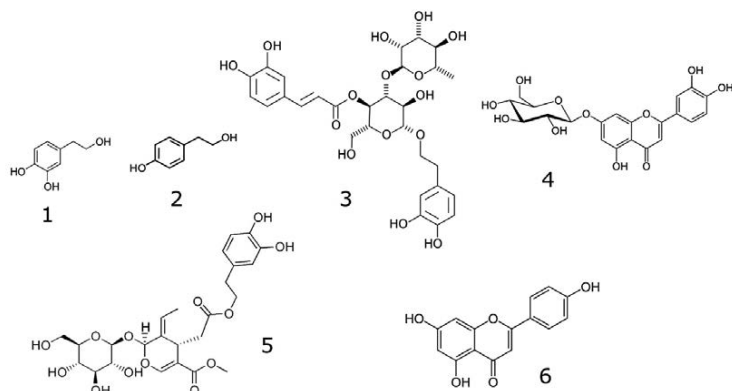
### Compounds in Olive Leaves Extract

Click [HERE](#) for Column Ordering Information.

A commercial Olive Extract was analyzed using the Cogent Phenyl Hydride Column. Only one Oleuropein Peak was detected and it was Symmetrical and well Retained. The results were reproducible (%RSD = 0.2 for Retention Times).

According to the literature [1] the extract from Olive leaves should contain additional compounds. To confirm that the extract doesn't contain these compounds, spiked Olive leaves extract was analyzed. All these reported, Phenolic compounds were detected and Separated.





## Peaks:

1. Hydroxytyrosol  $m/z$  177  $[M + Na]^+$
  2. Tyrosol  $m/z$  161  $[M + Na]^+$
  3. Verbascoside  $m/z$  647  $[M + Na]^+$
  4. Luteolin-7-O-glucoside  $m/z$  449  $[M + H]^+$
  5. Oleuropein  $m/z$  563  $[M + Na]^+$
  6. Apigenin  $m/z$  449  $[M + H]^+$
- Not present: Peonidin 3-O-glucoside 463  $m/z$   $[M]^+$

## Method Conditions

**Column:** Cogent Phenyl Hydride™, 4 $\mu$ m, 100Å

**Catalog No.:** 69020-05P-2

**Dimensions:** 2.1 x 50mm

**Mobile Phase:**

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

B: Acetonitrile / 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:** 0.4mL / minute

**Detection:** ESI - NEG - Perkin Elmer, Flexar SQ 300 Mass Spectrometer

**Sample Preparation:** Commercial Olive leaves extract was dissolved in DI Water and spiked at a concentration of

25ppm.

**t<sub>0</sub>**: 0.4 minutes

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



## Attachment

**No 298 Phenolic Compound Determination with LCMS pdf** 0.3 Mb [Download File](#)