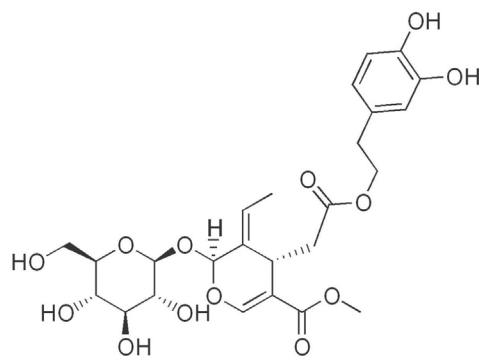
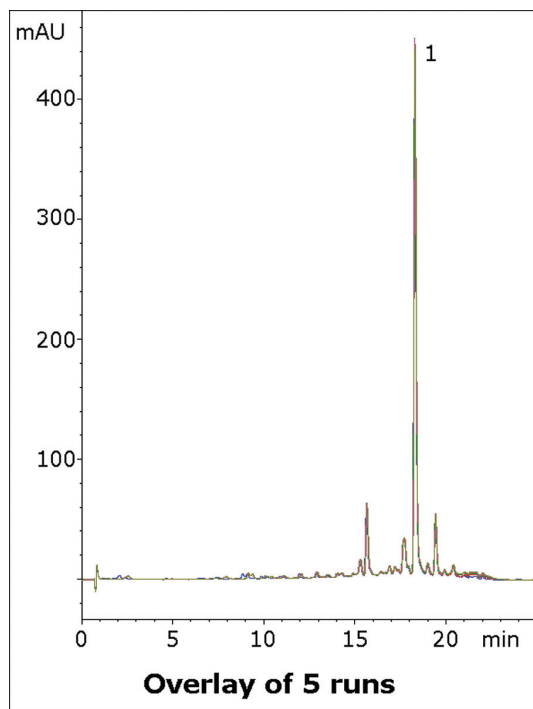


Oleuropein in Olive Leaves Extract (HPLC-UV)

Excellent separation of matrix peaks



Oleuropein

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.

Method Conditions

Column: Cogent Bidentate C18 2.0™, 2.2µm, 120Å

Catalog No.: 40218-05P-2

Dimensions: 2.1 x 50 mm

Mobile Phase: A: DI H₂O / 0.1% formic acid (v/v)
B: Acetonitrile / 0.1% formic acid (v/v)

Gradient:	time (min.)	%B
	0	5
	3	5
	19	25
	20	25
	21	5

Post Time: 5 min

Injection vol.: 1µL

Flow rate: 0.3mL/min

Detection: UV 254nm (Perkin-Elmer instrument)

Sample: 10.0mg olive leaf extract was added to 1mL volumetric flask. It was then diluted to mark with 50/50 solvent A/solvent B diluent. Then it was filtered with a 0.45µm nylon membrane filter (MicroSolv Tech Corp.).

Peak: 1. Oleuropein

t₀: 0.6 min

Discussion

The main peak (oleuropein) was observed to be well separated from matrix components in this HPLC-UV based approach. This method is useful for analysts that are not using LC-MS and therefore need good chromatographic separation in order to perform accurate quantitation. The matrix peaks do not co-elute with the main peak, which is required for UV-based methods. The column used (Cogent Bidentate C18 2.0) was found to be highly reproducible (5-run overlay shown in figure).