



Supplementary Figure S1

(A) GC-FID chromatogram from 'Arbequina' olive oil wax esters (peak assignment: 1, phytol palmitate; 2, phytol vaccinate; 3, phytol stearate; 4, phytol eicosenoate; 5, phytol arachidate; 6, phytol behenate; 7, phytol lignocerate). The dotted box indicates the area of the chromatogram where some signals appear which might correspond to sterol-type compounds. The arrow points to a signal eluting at 24.9 minutes, as an example of such a compound.

(B) Abundance of ions 296 and 396 for different compounds, corresponding respectively to the molar mass of the phytol group and of cerotic acid. The arrow points to the same signal as in panel (A).

(C) Fragmentation pattern for signal obtained at minute 24.9.

Supplementary Table S1. Average contents of total phenolics (TPC) in nine Spanish monovarietal oils (IRTA-Mas Bové experimental station, period 1993-1998).

Cultivar	TPC (mg caffeic acid kg ⁻¹)
‘Arbequina’	201
‘Argudell’	280
‘Empeltre’	238
‘Farga’	202
‘Manzanilla’	321
‘Marfil’	727
‘Morrut’	325
‘Picual’	509
‘Sevillena’	187

TPC were determined by the Folin-Ciocalteu assay according to ref. [1].

Reference

1. Singleton, V.L.; Orthofer, R.; Lamuela-Raventós, R.M. Analysis of total phenols and other oxidation substrates and antioxidants by means of Folin–Ciocalteu reagent. *Method Enzymol.* **1999**, *299*, 152–178, doi:10.1016/S0076-6879(99)99017-1.