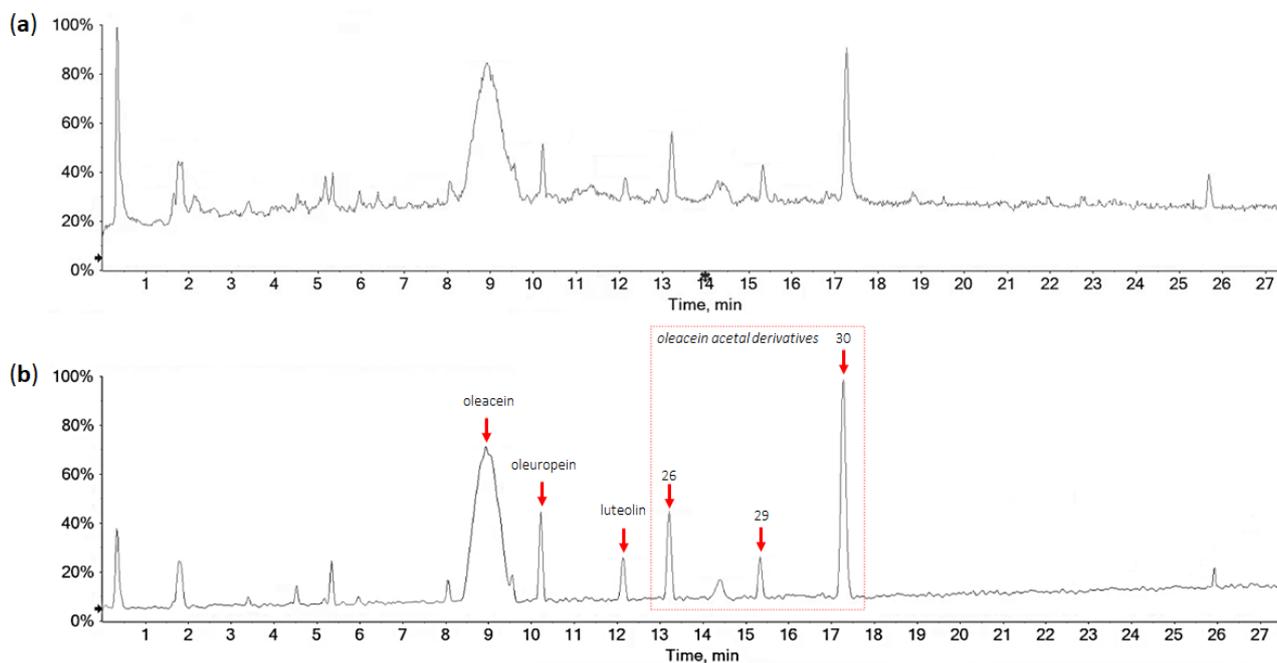
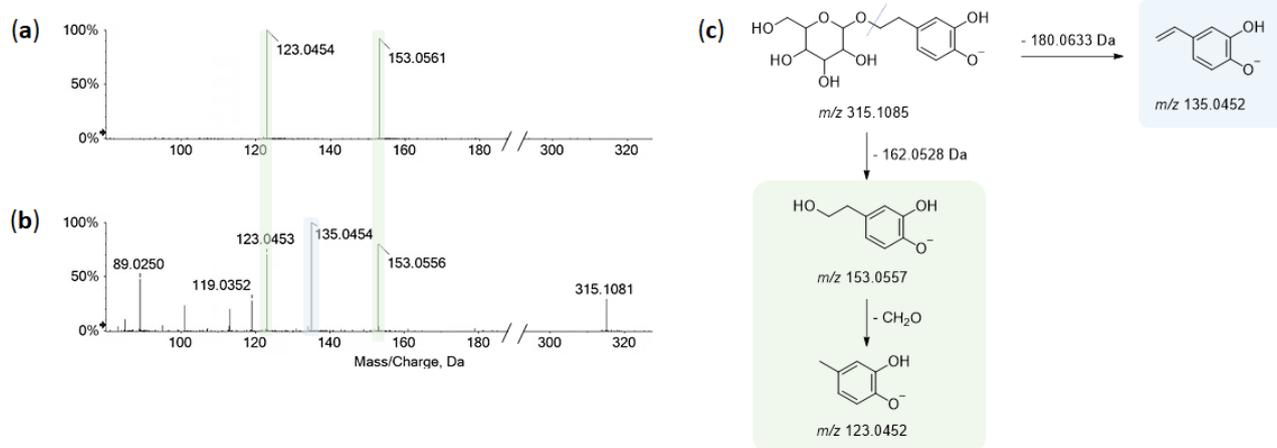


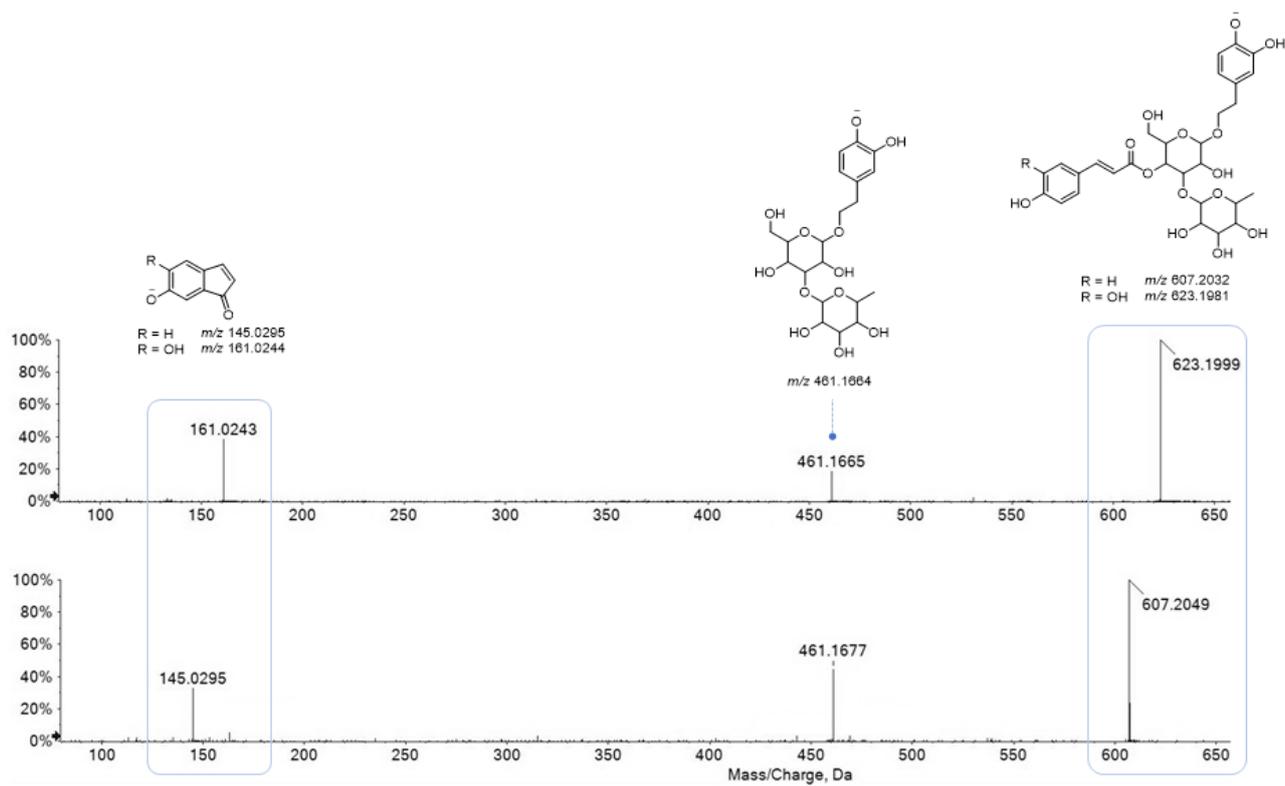
Supplementary materials



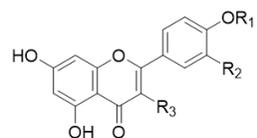
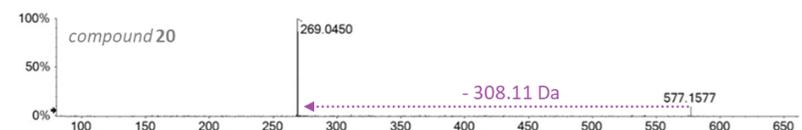
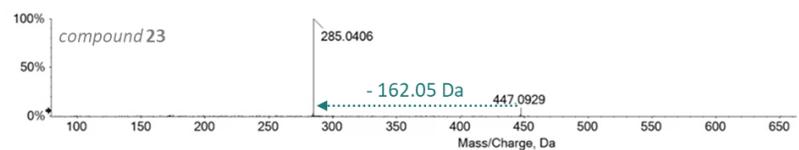
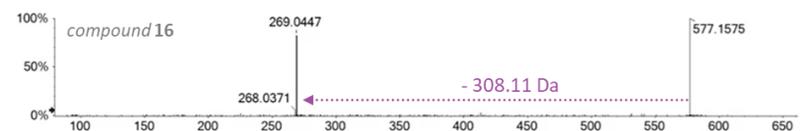
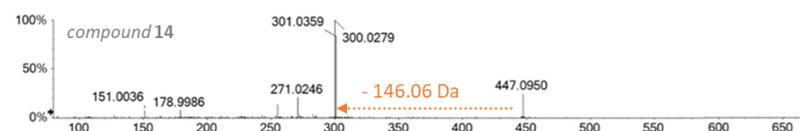
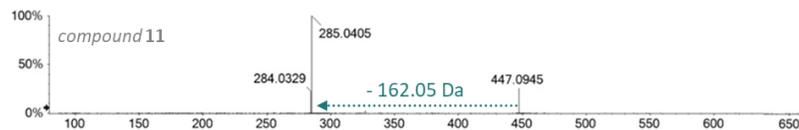
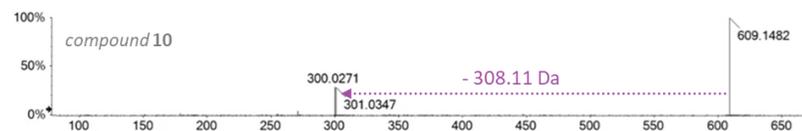
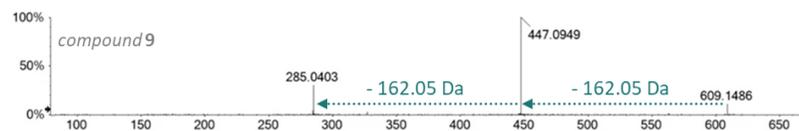
**Figure S1.** (a) Total Ion Current (TIC) and (b) Base Peak Chromatogram (BPC) of OLC extract. Red arrows denote the quantified compounds, considered the main responsible for the observed bioactivity.



**Figure S2.** TOF-MS/MS spectra of (a) hydroxytyrosol and (b) hydroxytyrosol hexoside; (c) hypothesized fragmentation pathways.



**Figure S3.** TOF-MS/MS spectra of compounds **12** (at  $m/z$  623.1981, calc. mass), **15** and **21** (at  $m/z$  607.2032, calc. mass). The hypothesized chemical structures of the detected ions are reported with theoretical  $m/z$  values.



**aglycones**

<b>9,11,17,23</b>	R <sub>1</sub> = H	R <sub>2</sub> = OH	R <sub>3</sub> = H	luteolin
<b>10,14</b>	R <sub>1</sub> = H	R <sub>2</sub> = OH	R <sub>3</sub> = OH	quercetin
<b>16,20</b>	R <sub>1</sub> = H	R <sub>2</sub> = H	R <sub>3</sub> = H	apigenin
<b>24</b>	R <sub>1</sub> = CH <sub>3</sub>	R <sub>2</sub> = OH	R <sub>3</sub> = H	diosmetin

deoxyhexose - H<sub>2</sub>O

hexose - H<sub>2</sub>O

deoxyhexosylhexose - H<sub>2</sub>O

**Figure S4.** TOF-MS/MS spectra of detected flavonoid glycosides. The aglycone structures are provided together with the glyconic moieties.

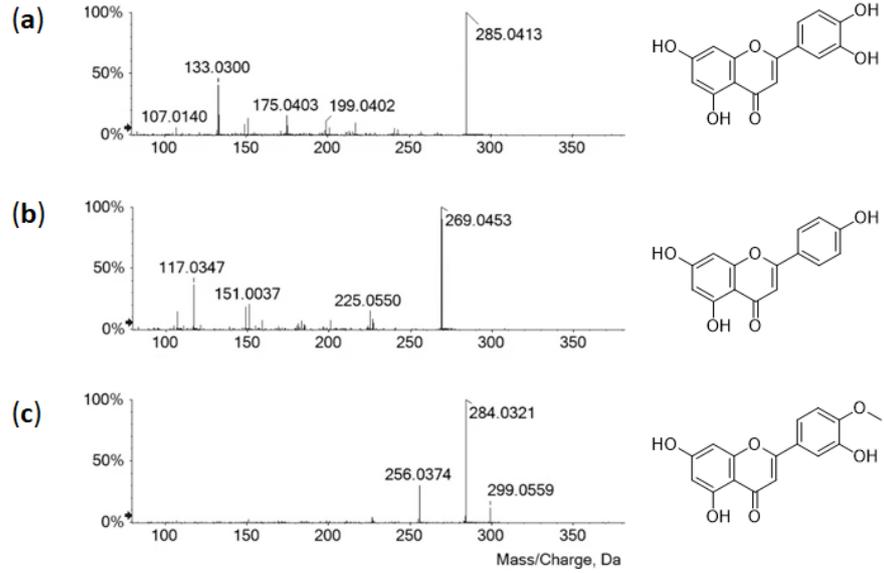


Figure S5. TOF-MS spectra of flavones: (a) luteolin, (b) apigenin, and (c) diosmetin.

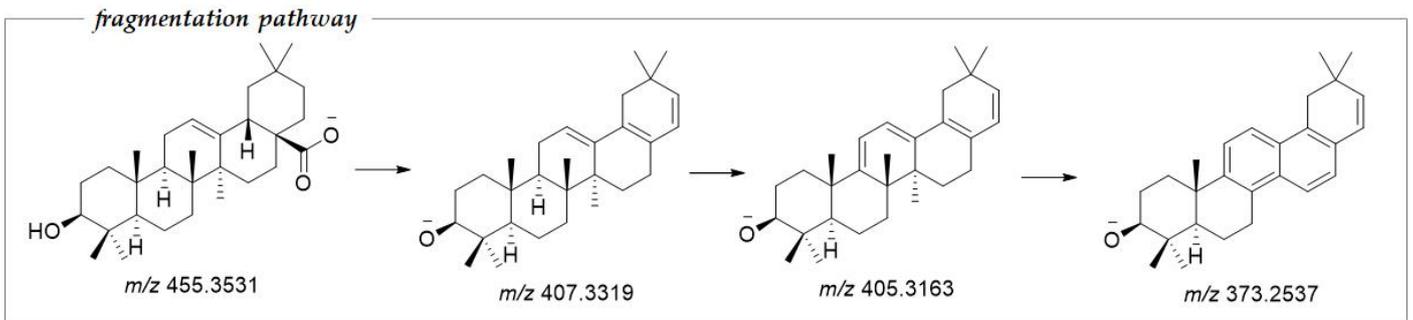
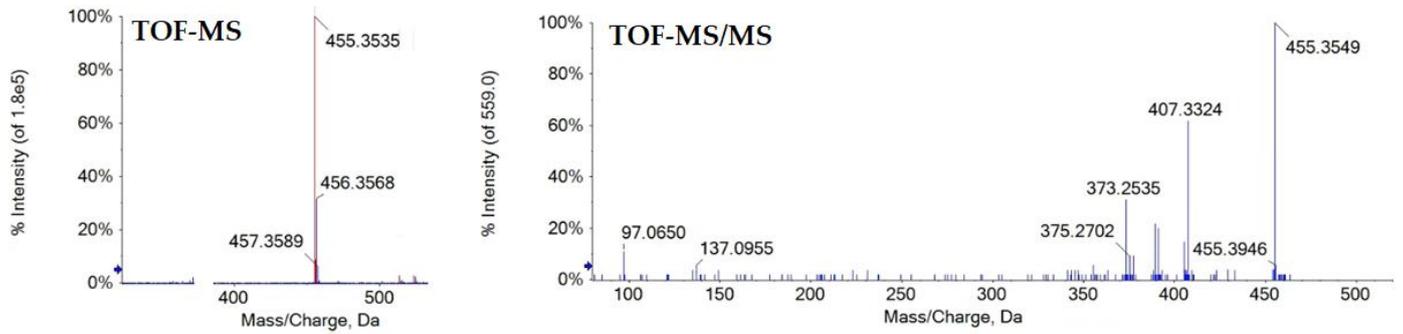


Figure S6. Experimental evidence of the occurrence of oleanolic acid (XIC = eXtracted Ion Chromatogram).