

**Sustainable extraction techniques for obtaining antioxidant and anti-inflammatory compounds
from Lamiaceae and Asteraceae genera**

M. Villalva^{1,*}, S. Santoyo¹, L. Salas-Pérez², M. N. Siles-Sánchez¹, M. R. García-Risco¹, T. Fornari¹, G.
Reglero^{1,3}, L. Jaime^{1,*}

¹ Institute of Food Science Research (CIAL). Universidad Autónoma de Madrid (CEI UAM+CSIC).
28049 Madrid, Spain.

² Polytechnic University of Gomez Palacio (UPGOP). 35120 Durango, México.

³ Imdea-Food Institute, Universidad Autónoma de Madrid (CEI UAM+CSIC), 28049 Madrid, Spain.

*Corresponding authors:

M.V. Institute of Food Science Research (CIAL). Universidad Autónoma de Madrid. Nicolás Cabrera,
9. 28049 Madrid, Spain. E-mail: marisol.villalva@uam.es Telephone: +34 910 017 900

L.J. Institute of Food Science Research (CIAL). Universidad Autónoma de Madrid. Nicolás Cabrera, 9.
28049 Madrid, Spain. E-mail: laura.jaime@uam.es Telephone: +34 910 017 925

SUPPLEMENTARY MATERIAL

Table S1. Authentic commercial standards (HPLC purity $\geq 95\%$)

Supplier	Authentic standard
Cymit Química SL, Madrid, Spain	Ishoramnetin-3- <i>O</i> -rutinoside Isorhamnetin-3- <i>O</i> -glucoside Isorhamnetin-3- <i>O</i> -rhamnosylrutinoside
Extrasynthese S.A., Genay, France	Apigenin-7- <i>O</i> -glucuronide Apigenin-7- <i>O</i> -glucoside Caffeic acid Ethyl gallate Homoorientin Isoquercitrin Isorhamnetin Luteolin-7- <i>O</i> - β -glucoside Luteolin-7- <i>O</i> -glucuronide Quercetin Rutin
Phytolab, Madrid, Spain	1,5- Dicaffeoylquinic acid 3,4- Dicaffeoylquinic acid 3,5- Dicaffeoylquinic acid 4,5- Dicaffeoylquinic acid Apigenin Caftaric acid Casticin Cryptochlorogenic acid Diosmin Kaempferol-3- <i>O</i> -rutinoside Lithospermic acid Luteolin Naringenin Neochlorogenic acid Orientin Protocatechuic acid Salvianolic acid B Schafotoside Vicenin II
Sigma-Aldrich, Madrid, Spain	Arbutin Chlorogenic acid Diosmetin Gallic acid Rosmarinic acid Vitexin

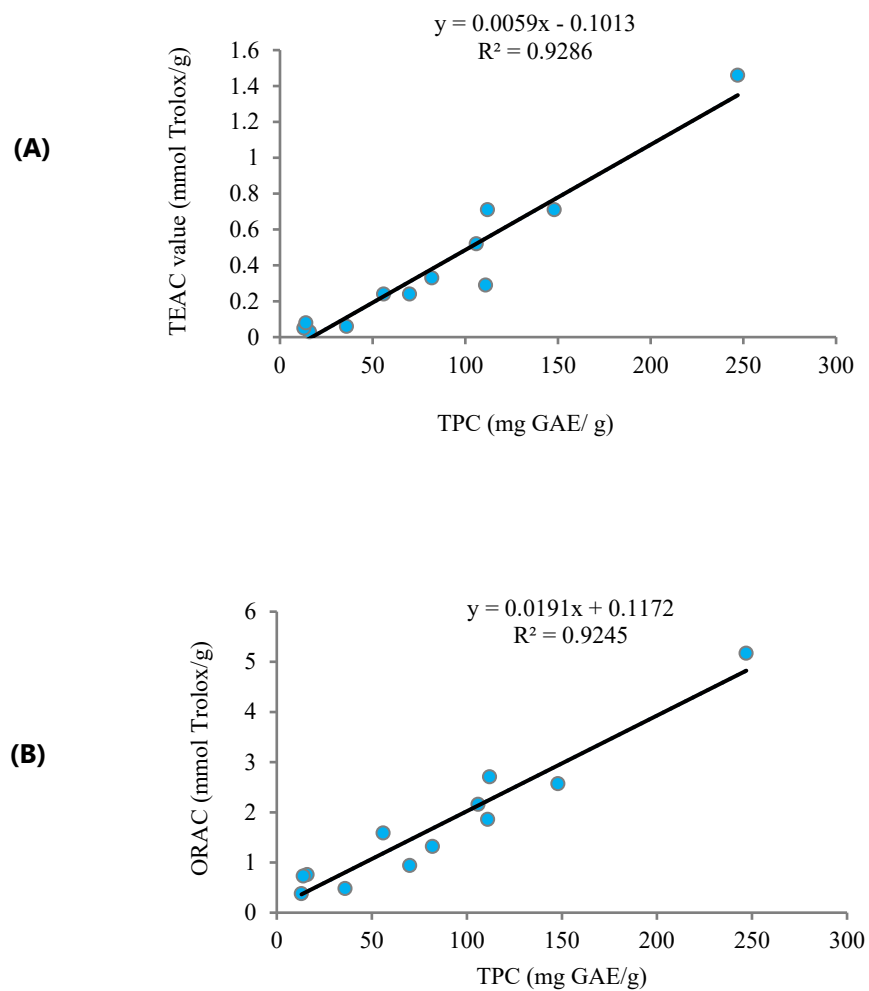


Figure S1. Antioxidant activity of Asteraceae and Lamiaceae plant extracts as a function of TPC (mg GAE/g). (A) TEAC value (mmol trolox/ g); (B) ORAC (mmol trolox / g).

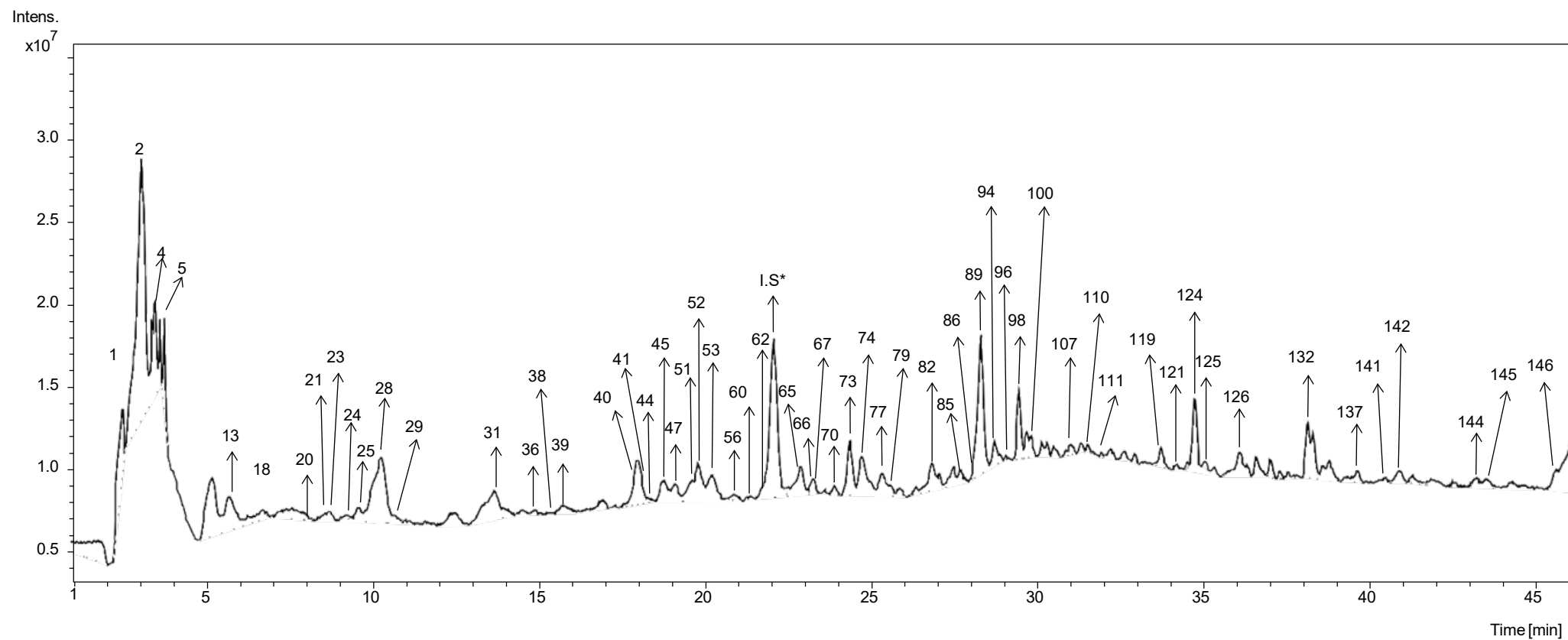


Figure S2. Base-peak chromatogram of *Achillea millefolium* L. obtained by UAE (ethanol-water, 50:50, v/v) analysed by HPLC-ESI-QTOF-MS in negative ionization mode. *IS, internal standard (ethyl gallate).