

Supplementary material

Valorization of agri-food waste from pistachio hard shells: extraction of polyphenols as natural antioxidants

Nunzio Cardullo, Melania Leanza, Vera Muccilli* and Corrado Tringali

Department of Chemical Sciences, University of Catania, Viale A. Doria 6, 95125 Catania, Italy;
ncardullo@unict.it; melanialeanza.92@gmail.com; ctringali@unict.it

* Correspondence: v.muccilli@unict.it; Tel.: +39 0957385041

Table S1. Pearson correlation analysis

		1/DPPH	TEAC	ORAC	TPC	TFC
1/DPPH	Pearson Corr.	1	0.91909	0.94559	0.92746	0.54415
	p-value	--	1.28869E-6	1.04357E-7	6.47002E-7	0.03599
TEAC	Pearson Corr.	0.91909	1	0.95605	0.88351	0.74203
	p-value	1.28869E-6	--	2.67215E-8	1.26115E-5	0.00154
ORAC	Pearson Corr.	0.94559	0.95605	1	0.85706	0.63816
	p-value	1.04357E-7	2.67215E-8	--	4.46191E-5	0.01047
TPC	Pearson Corr.	0.92746	0.88351	0.85706	1	0.5152
	p-value	6.47002E-7	1.26115E-5	4.46191E-5	--	0.04937
TFC	Pearson Corr.	0.54415	0.74203	0.63816	0.5152	1
	p-value	0.03599	0.00154	0.01047	0.04937	--

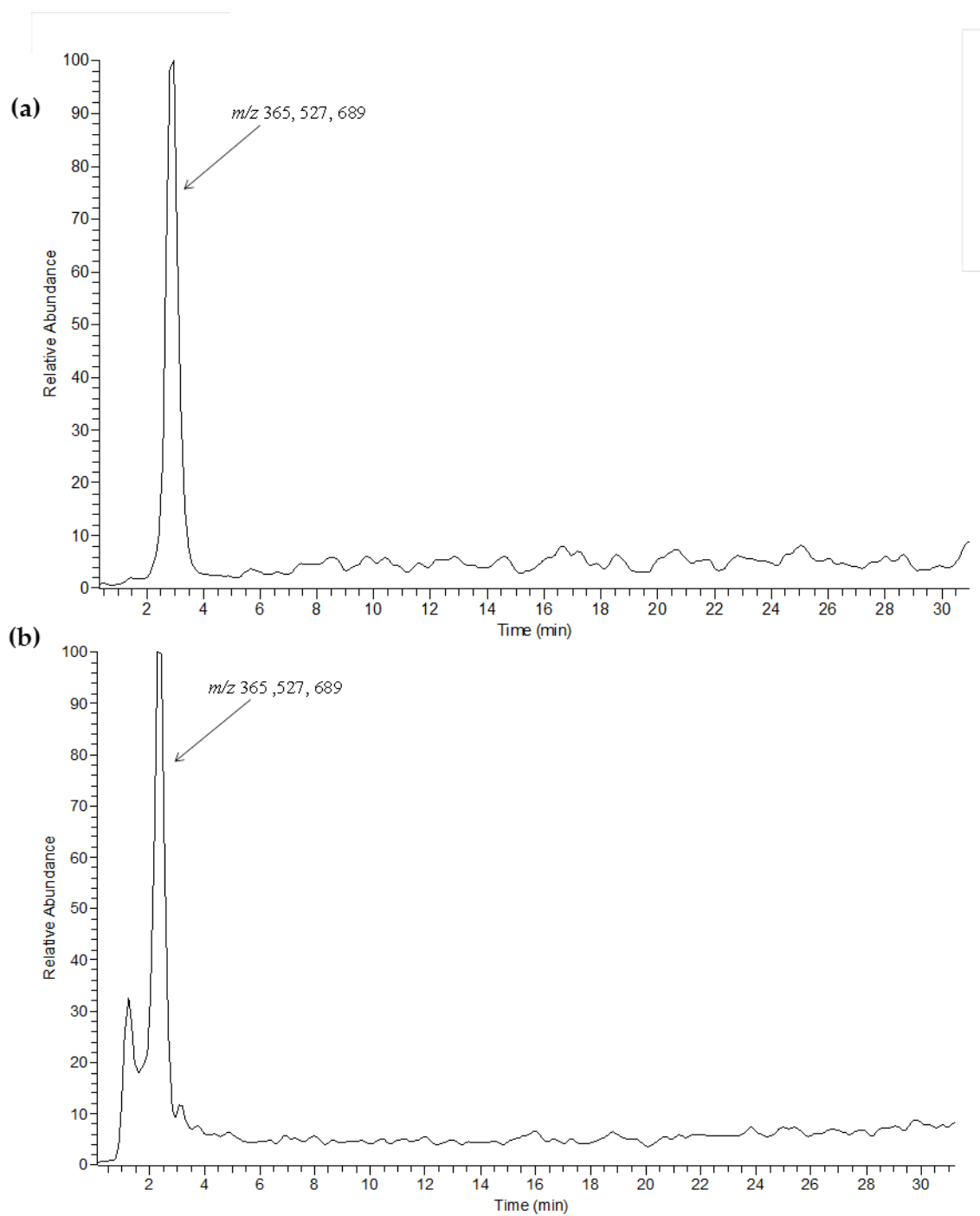


Figure S1. HPLC/ESI-MS profile of (a) Fr1 and (b) Fr2.

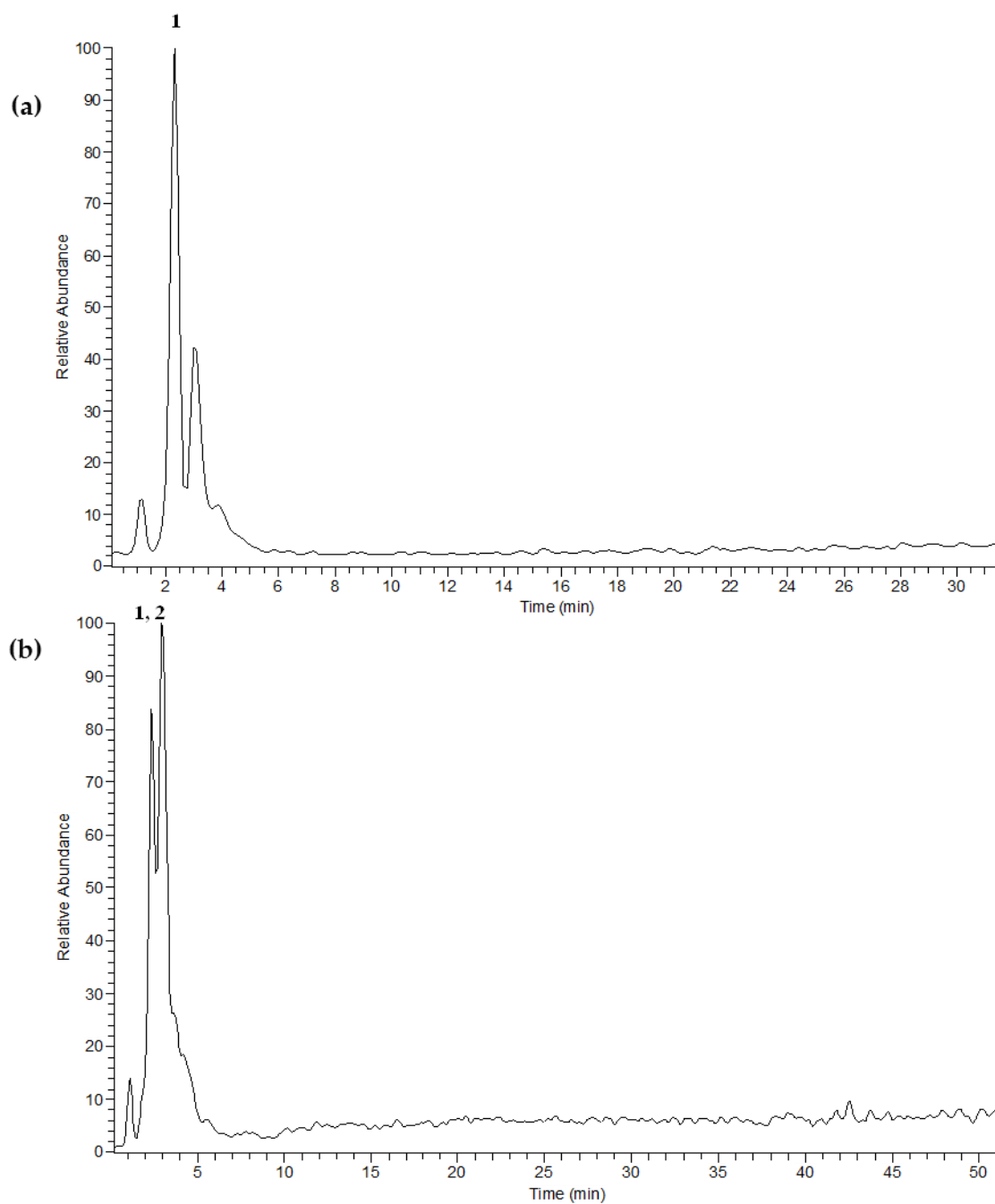


Figure S2. HPLC/ESI-MS profile of (a) Fr3 and (b) F4.

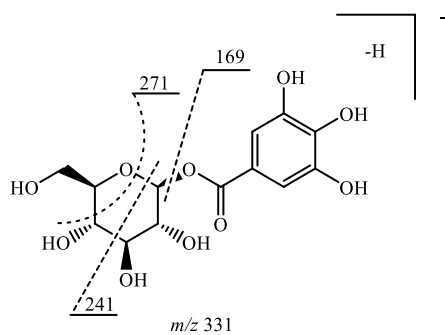


Figure S3. MS/MS fragmentation pattern of $[M-H]^-$ at m/z 331 identified as monogalloylglucose isomer (2).

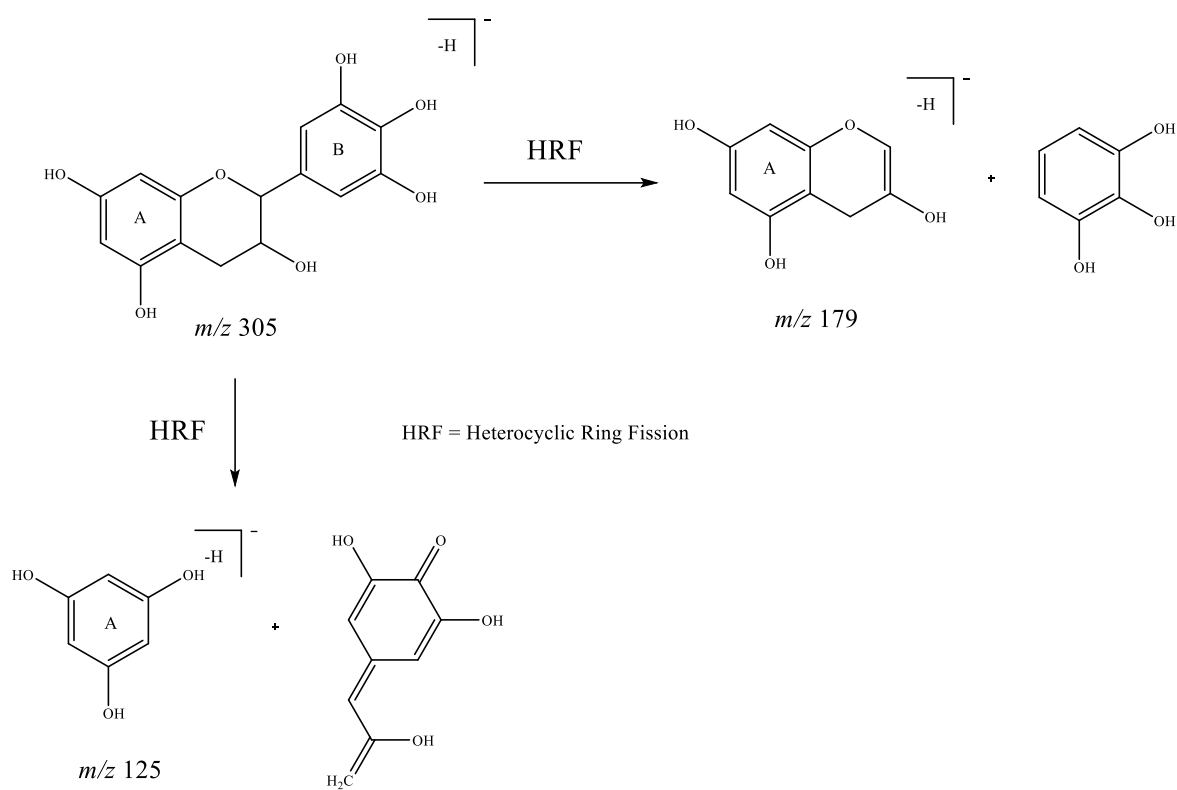


Figure S4. MS/MS fragmentation pattern of $[M-H]^-$ at m/z 305 identified as (+)-gallocatechin (3).

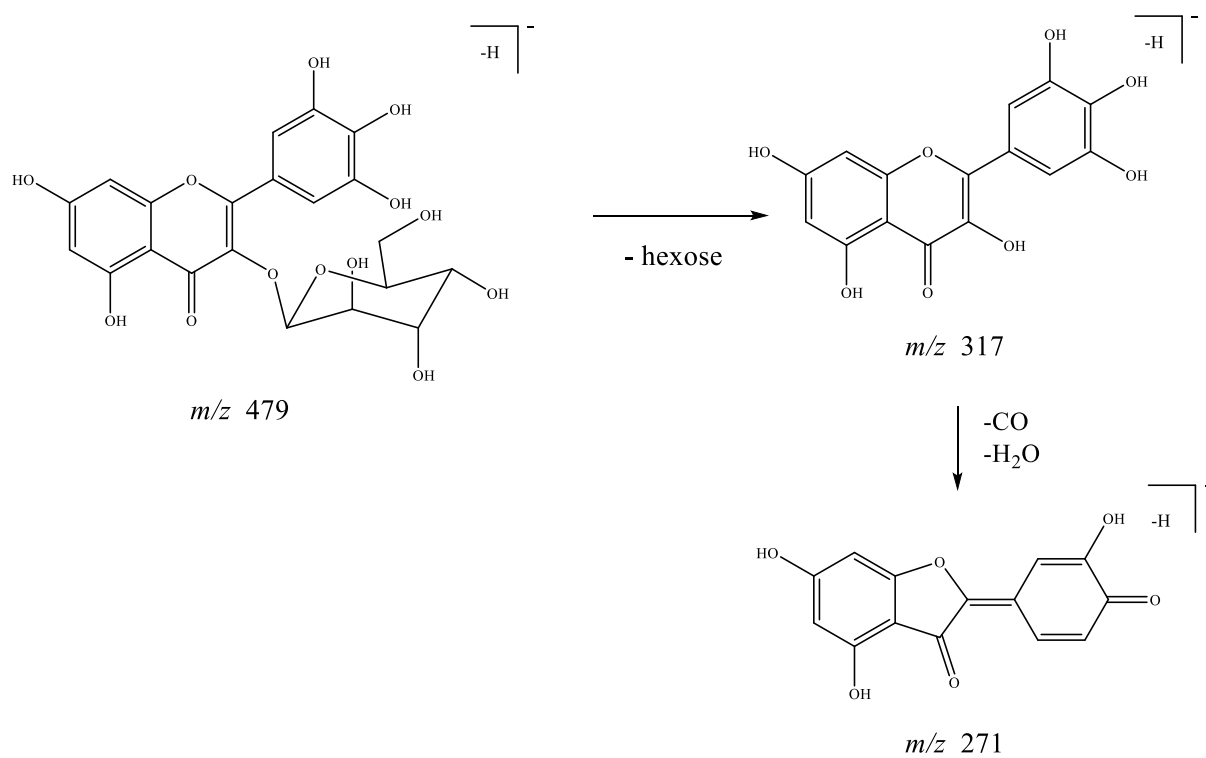


Figure S5. MS/MS fragmentation pattern of $[M-H]^-$ at m/z 479 identified as myricetin hexoside (4).

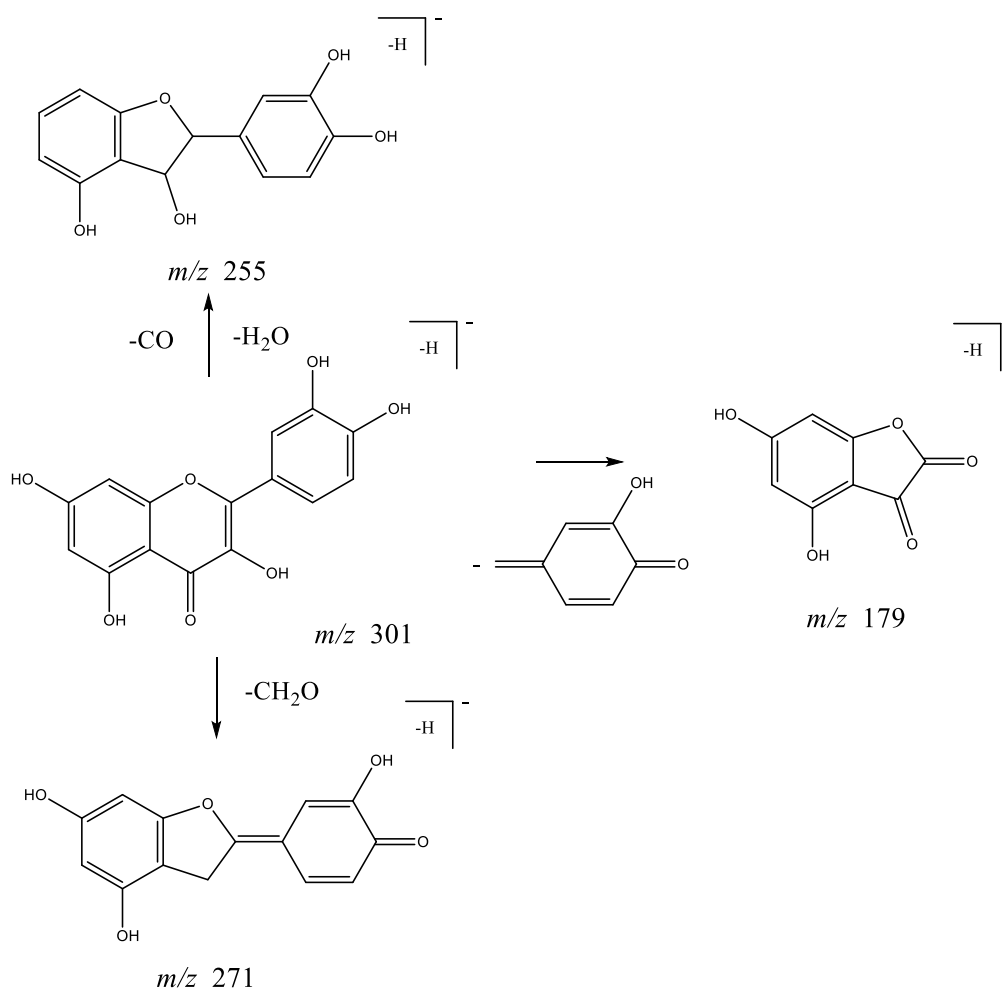


Figure S6. MS/MS fragmentation pattern of $[M-H]^-$ at m/z 301 identified as quercetin (9).