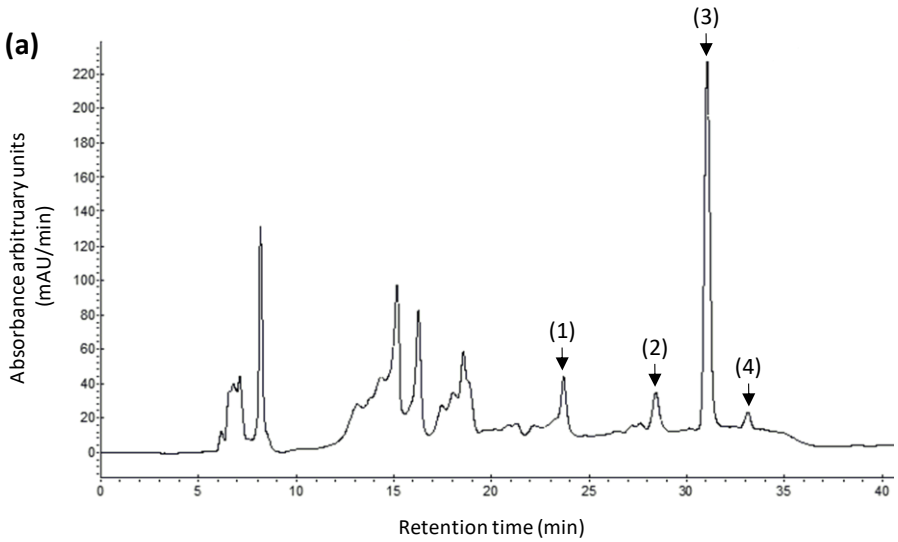
Figure S1: (a) HPLC chromatogram (detection set at 325 nm) of the almond skin extract (*Beldi* genotype grown in the Ain Sfa (34°46'42.4''N, 002°09'28.9''W) pilot location in the eastern Morocco) prepared by ultrasound-assisted extraction USAE. **(b)** Structures and corresponding numbers on the HPLC chromatogram of the main phenolic compounds considered in this study: protocatechuic acid (1), *p*-hydroxybenzoic acid (2), chlorogenic acid (3) and *p*-coumaric acid (4).



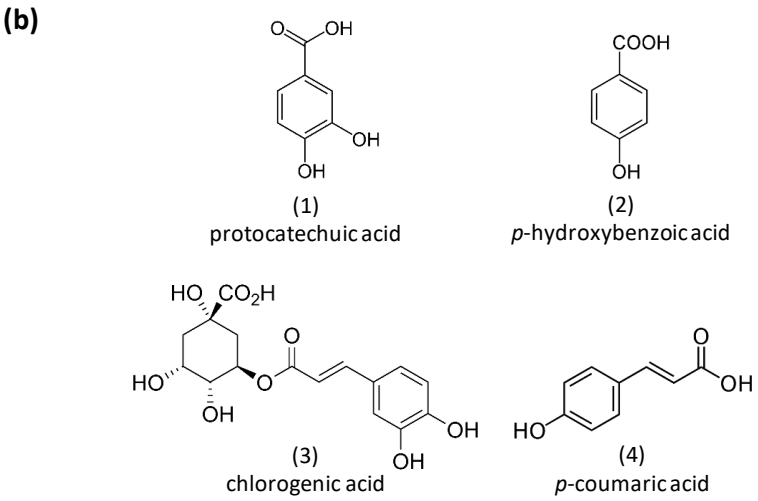
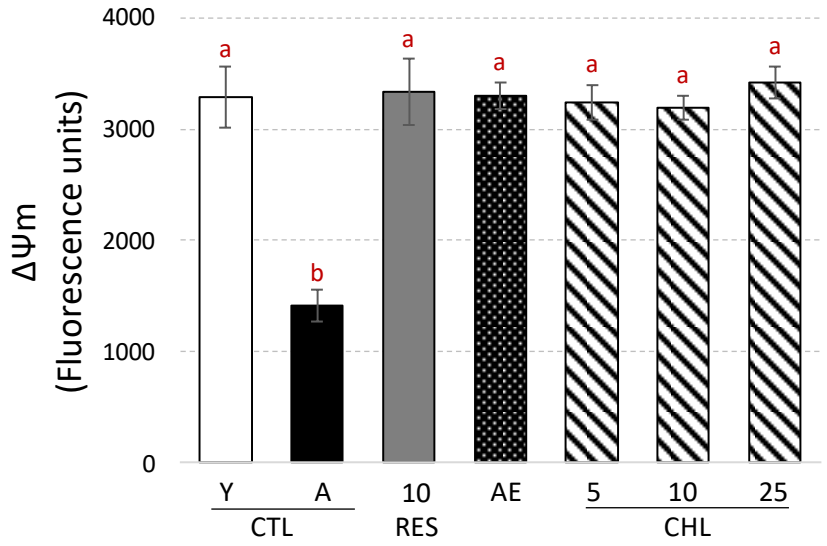


Figure S2: Mitochondria integrity estimated by mitochondrial potential (ΔΨm) variation.



The evaluation of mitochondria membrane potential (ΔΨm) was carried out by treating cells with 3,30-dihexyloxacarbocyanineiodide (DiOC6(3), Sigma-Aldrich, Saint-Quentin Fallavier, France). DiOC6(3) stains mitochondria depending on their ΔΨm. Cells were incubated in culture medium with 25 nM DiOC6(3) for 40 min at 28°C. Results were expressed as relative fluorescent units. Values are means ± SD of 6 independent replicates. Different letters represent significant differences between the different conditions ($p < 0.05$).

Table S1: Absolute quantification of chlorogenic acid (and other phenolic acids) contents in US almond skin extract [2] (in mg/g DW) and final concentration (in µM) applied on yeast.

	TPC[1]	**protocatechuic acid**	***p*-hydroxybenzoic acid**	**chlorogenic acid**	***p*-coumaric acid**
US extract (mg/g DW)	13.86 ± 0.91	2.03 ± 0.07	1.13 ± 0.02	8.14 ± 0.10	0.26 ± 0.20
Concentration applied on yeast (in µM)	88.00 ± 5.78	14.15 ± 0.49	8.83 ± 0.16	25.00 ± 0.30	1.58 ± 1.31

US: ultrasound; [1]TPC: total phenolic content expressed in gallic acid equivalent; other phenolic acids from the extract are: protocatechuic acid, *p*-hydroxybenzoic acid and *p*-coumaric acid contents. [2] *Beldi* genotype grown in the Ain Sfa (34°46'42.4''N, 002°09'28.9''W) pilot location in the eastern Morocco. Values are means ± SD of 3 independent replicates.

Table S2: Growth index and viability of yeast cells under the different treatment conditions determined 48h after treatment.

Conditions	Growth index	Viability
CTL	34.25 ± 1.23 [ab]	95.37 ± 2.61 [a]
RES (10 µM)	34.04 ± 1.72 [ab]	94.27 ± 2.01 [a]
AE	36.12 ± 0.67 [a]	94.45 ± 1.85 [a]
CHL (5 µM)	33.47 ± 0.32 [b]	94.24 ± 1.78 [a]
CHL (10 µM)	33.88 ± 0.19 [b]	96.58 ± 2.92 [a]
CHL (25 µM)	33.38 ± 1.22 [ab]	96.30 ± 3.04 [a]

Almond extract (AE, 1 mg/mL); Chlorogenic acid at 3 concentrations (CHL5, CHL10 and CHL25 corresponding to chlorogenic acid addition at 5, 10 and 25 µM, respectively). *E*-Resveratrol (RES, 10 µM) used as control antiaging drug. Values are means ± standard deviations (SD) of 4 independent experiments. Different letters represent significant differences between the different conditions ($p < 0.05$).

Table S3: Estimation of chlorogenic acid and *E*-resveratrol uptake by yeast cell determined 6h after their additions in culture medium

Compound	Concentrations/ Conditions	Relative content in culture medium	Relative content in yeast cells	Total
E-Resveratrol	10µM	9.43 ± 2.59	80.40 ± 1.81	89.83 ± 4.40
Chlorogenic acid	AE 1	19.20 ± 1.97	70.77 ± 3.56	89.97 ± 5.53
Chlorogenic acid	5 µM	21.10 ± 2.41	70.70 ± 0.53	91.80 ± 2.94
Chlorogenic acid	10 µM	23.47 ± 1.01	71.73 ± 1.47	95.20 ± 2.48
Chlorogenic acid	25 µM	16.60 ± 1.11	74.67 ± 3.90	91.27 ± 5.01

Values are means ± standard deviations (SD) of 4 independent experiments.