

Table S1. Characteristics of tomato paste samples

Sample	% water	pH	Soluble solids (°Brix)	Acidity (g citric acid/100g)	g NaCl/ 100 g	color			
						L*	a*	b*	a*/b*
76	56.69	4.38	30.16	1.83	0.14	23.78	26.87	14.78	1.82
77	52.69	4.38	36.98	2.45	0.20	23.85	31.51	14.45	2.18
78	67.86	4.35	29.26	2.05	0.19	25.15	30.04	15.07	1.99
80	58.79	4.36	37.15	2.28	0.15	24.34	32.18	14.80	2.17
81	66.83	4.44	29.12	1.79	0.08	23.28	32.56	14.67	2.22
85	58.34	4.42	36.90	2.30	0.13	23.63	32.04	14.57	2.20
89	65.68	4.42	29.22	2.31	0.15	22.54	32.14	14.25	2.26
90	66.12	4.42	29.13	2.13	0.11	24.93	29.68	11.57	2.57
91	57.01	4.42	37.42	2.53	0.11	25.32	28.86	11.83	2.44
93	56.85	4.43	37.33	2.90	0.07	23.52	32.04	14.73	2.18
96	55.38	4.47	37.25	2.60	0.09	23.75	32.20	14.76	2.18
97	57.67	4.45	38.62	3.28	0.13	24.85	34.04	15.42	2.21
100	65.15	4.52	30.04	2.05	0.17	24.38	32.38	15.08	2.15
103	66.06	4.51	29.38	1.86	0.03	24.62	30.09	15.14	1.99
108	63.89	4.55	30.09	1.70	0.15	22.72	31.74	14.24	2.23
109	58.26	4.35	37.32	2.38	0.11	24.63	33.82	15.23	2.22
111	65.18	4.36	28.68	1.82	0.07	24.78	30.04	15.04	2.00
114	64.82	4.36	30.77	1.94	0.09	22.80	27.70	14.17	1.96
116	65.36	4.44	29.74	1.17	0.22	23.19	31.63	14.63	2.16
120	62.29	4.35	31.33	2.02	0.13	24.63	33.79	15.19	2.22
124	66.57	4.53	28.72	1.48	0.12	23.19	29.90	14.32	2.09
126	58.19	4.36	37.25	2.80	0.20	23.09	32.97	14.49	2.28

Table S2. Figures of merit obtained for calibration of Folin-Ciocalteu method, using the ACOC program.

Figure of merit		
Slope (m) (L/mg)		0.0952
Origin value (b) (A)		-0.004
Standard deviation of slope (S_m)		0.001
Standard deviation of origin (S_b)		0.008
Standard deviation of regression (S_{y/x})		0.019
Determination coefficient (R²)		0.998
Analytical sensitivity (γ⁻¹) (mg/L)		0.248
Limit of detection (LOD) (mg/L)	Long-Winefordner*	0.291
	Clayton**	0.498
Limit of quantification (LOQ) (mg/L)	Long-Winefordner	1.00
	Clayton	1.67

*G. L. Long and J. D. Winefordner, Anal. Chem. 1983, 55, 07, 712A–724A

**C. A. Clayton, J. W. Hines, and P. D. Elkins, Anal. Chem. 1987, 59, 20, 2506-2514

Table S3. Figures of merit obtained for Trolox calibration, using the ACOC program.

Figure of merit		
Slope (m) (L/mg)		1.88
Origin value (b) (A)		0.026
Standard deviation of slope (S_m)		0.030
Standard deviation of origin (S_b)		0.007
Standard deviation of regression (S_{y/x})		0.023
Determination coefficient (R²)		0.999
Analytical sensitivity (γ⁻¹) (mg/L)		0.012
Limit of detection (LOD) (mg/L)	Long-Winefordner (mg/L)	0.012
	Clayton (mg/L)	0.028
Limit of quantification (LOQ) (mg/L)	Long-Winefordner (mg/L)	0.040
	Clayton (mg/L)	0.093

Table S4. Experimental data and total polyphenols present in the hydrophilic extracts

Sample name	weight (g)	A (662 nm)	C (µg/mL)	Total polyphenols mg GAE/100 g
T.76	0.5041	0.688	7.252	239.8 ± 7.1
T.77	0.5036	0.610	6.435	212.9 ± 7.2
T.78	0.5077	0.500	5.283	173.4 ± 7.0
T.80	0.5039	0.751	7.913	261.7 ± 7.2
T.81	0.5077	0.655	6.909	226.8 ± 7.1
T.85	0.5063	0.790	8.319	273.9 ± 7.2
T.89	0.5027	0.673	7.097	235.3 ± 7.2
T.90	0.5068	0.696	7.335	241.2 ± 7.2
T.91	0.5065	0.705	7.428	244.4 ± 7.1
T.93	0.5024	0.733	7.721	256.2 ± 7.1
T.96	0.5319	0.731	7.703	241.4 ± 7.2
T.97	0.4710	0.506	5.346	189.2 ± 6.8
T.100	0.5057	0.617	6.506	214.4 ± 7.6
T.103	0.5003	0.584	6.164	205.4 ± 7.1
T.108	0.4673	0.587	6.196	221.0 ± 7.2
T.109	0.5071	0.559	5.894	193.7 ± 7.7
T.111	0.5094	0.552	5.826	190.6 ± 7.1
T.114	0.5014	0.534	5.640	187.5 ± 7.0
T.116	0.5236	0.741	7.804	248.4 ± 7.1
T.120	0.5035	0.683	7.199	238.3 ± 6.9
T.124	0.5007	0.671	7.076	235.6 ± 7.1
T.126	0.5087	0.557	5.875	192.5 ± 7.2

Table S5. *Experimental data and total polyphenols present in the lipophilic extracts*

Sample name	weight (g)	A (662 nm)	C (µg/mL)	Total polyphenols mg GAE/100 g
T.76	0.5037	0.140	1.548	76.81 ± 10
T.77	0.5014	0.078	0.822	40.98 ± 10
T.78	0.5026	0.099	0.992	49.32 ± 10
T.80	0.5044	0.135	1.398	69.29 ± 10
T.81	0.5006	0.084	1.082	54.02 ± 10
T.85	0.5025	0.098	1.103	54.86 ± 10
T.89	0.5005	0.0767	0.842	42.07 ± 10
T.90	0.5019	0.098	1.105	55.03 ± 10
T.91	0.5020	0.082	0.884	44.01 ± 10
T.93	0.5036	0.104	1.020	50.63 ± 10
T.96	0.5015	0.099	1.111	55.38 ± 10
T.97	0.5003	0.087	0.957	47.82 ± 10
T.100	0.5038	0.118	1.328	65.89 ± 10
T.103	0.5011	0.070	0.766	38.20 ± 10
T.108	0.5048	0.109	1.256	62.18 ± 10
T.109	0.5049	0.093	0.995	49.26 ± 10
T.111	0.5040	0.137	1.514	75.11 ± 10
T.114	0.5029	0.098	1.212	60.23 ± 10
T.116	0.5034	0.157	1.528	75.87 ± 10
T.120	0.5017	0.093	0.944	47.01 ± 10
T.124	0.5006	0.093	1.134	56.63 ± 10
T.126	0.5049	0.125	0.995	49.26 ± 10

Table S6. Experimental data and total antioxidant capacity expressed in $\mu\text{mol Trolox/g}$ of tomato paste in hydrophilic extracts.

Sample name	Weight (g)	ABTS ⁺ radical elimination (parts per unit)	C (μM)	$\mu\text{mol Trolox/g}$
T.76	0.5041	0.42	207.2	25.89 \pm 0.04
T.77	0.5036	0.71	364.0	45.54 \pm 0.04
T.78	0.5077	0.69	350.5	43.50 \pm 0.04
T.80	0.5039	0.72	365.8	45.74 \pm 0.04
T.81	0.5077	0.53	265.4	32.94 \pm 0.04
T.85	0.5063	0.32	153.9	19.15 \pm 0.04
T.89	0.5027	0.30	144.6	18.12 \pm 0.04
T.90	0.5068	0.28	136.9	17.02 \pm 0.04
T.91	0.5065	0.31	149.1	18.54 \pm 0.04
T.93	0.5024	0.33	161.5	20.26 \pm 0.04
T.96	0.5319	0.38	188.7	22.35 \pm 0.05
T.97	0.4710	0.52	259.6	34.72 \pm 0.04
T.100	0.5057	0.85	435.9	54.31 \pm 0.04
T.103	0.5003	0.24	114.6	14.42 \pm 0.04
T.108	0.4673	0.22	101.7	13.71 \pm 0.04
T.109	0.5071	0.40	195.7	24.32 \pm 0.04
T.111	0.5094	0.57	287.1	35.50 \pm 0.04
T.114	0.5014	0.48	241.5	30.34 \pm 0.04
T.116	0.5236	0.40	195.7	23.54 \pm 0.04
T.120	0.5035	0.40	198.9	24.89 \pm 0.04
T.124	0.5007	0.94	485.6	61.10 \pm 0.04
T.126	0.5087	0.48	239.5	29.66 \pm 0.04

Table S7. Experimental data and total antioxidant capacity expressed in $\mu\text{mol Trolox/g}$ of tomato paste in hydrophilic extracts.

Sample name	Weight (g)	ABTS⁺ radical elimination (parts per unit)	C (μM)	$\mu\text{mol Trolox/g}$
T.76	0.5037	0.13	55.07	45.92 \pm 0.08
T.77	0.5014	0.05	11.12	9.31 \pm 0.08
T.78	0.5026	0.12	49.85	41.66 \pm 0.08
T.80	0.5044	0.05	13.29	11.07 \pm 0.08
T.81	0.5006	0.13	54.85	46.02 \pm 0.08
T.85	0.5025	0.23	109.3	91.32 \pm 0.08
T.89	0.5005	0.21	96.78	81.21 \pm 0.08
T.90	0.5019	0.12	48.69	40.74 \pm 0.08
T.91	0.502	0.09	34.25	28.66 \pm 0.08
T.93	0.5036	0.12	50.21	41.88 \pm 0.08
T.96	0.5015	0.14	57.83	48.43 \pm 0.08
T.97	0.5003	0.18	79.44	66.69 \pm 0.08
T.100	0.5038	0.09	32.95	27.47 \pm 0.08
T.103	0.5011	0.07	20.33	17.04 \pm 0.08
T.108	0.5048	0.20	92.86	77.26 \pm 0.08
T.109	0.5049	0.12	51.01	42.43 \pm 0.08
T.111	0.504	0.12	50.07	41.72 \pm 0.08
T.114	0.5029	0.08	26.86	22.43 \pm 0.08
T.116	0.5034	0.13	56.23	46.92 \pm 0.08
T.120	0.5017	0.18	78.86	66.02 \pm 0.08
T.124	0.5006	0.10	40.49	33.97 \pm 0.08
T.126	0.5049	0.25	116.6	96.98 \pm 0.08