

## Supplementary materials

### **A polyphenol rich extract from *Solanum melongena* L. DR2 peel exhibits antioxidant properties and anti-herpes simplex virus type 1 activity *in vitro***

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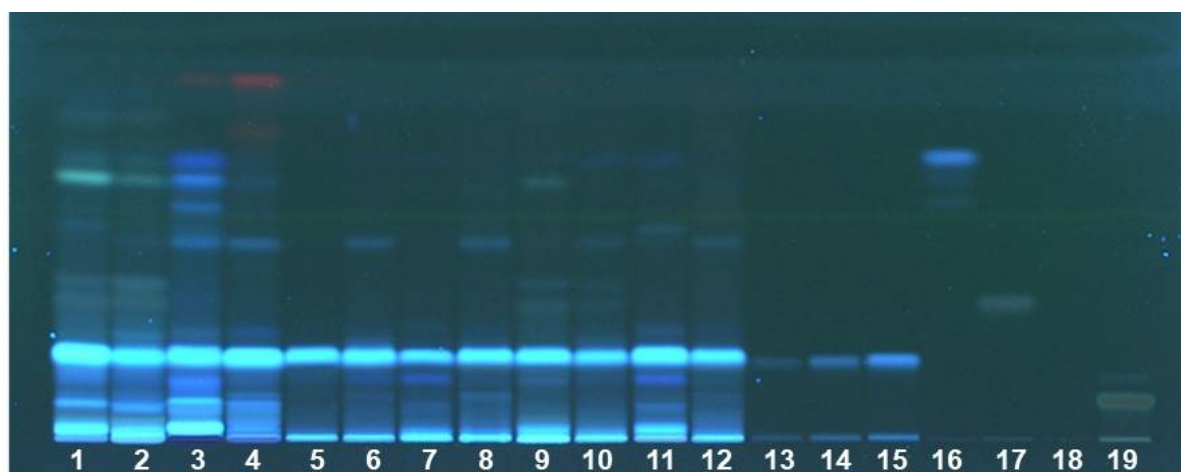
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#These authors equally contributed to the work

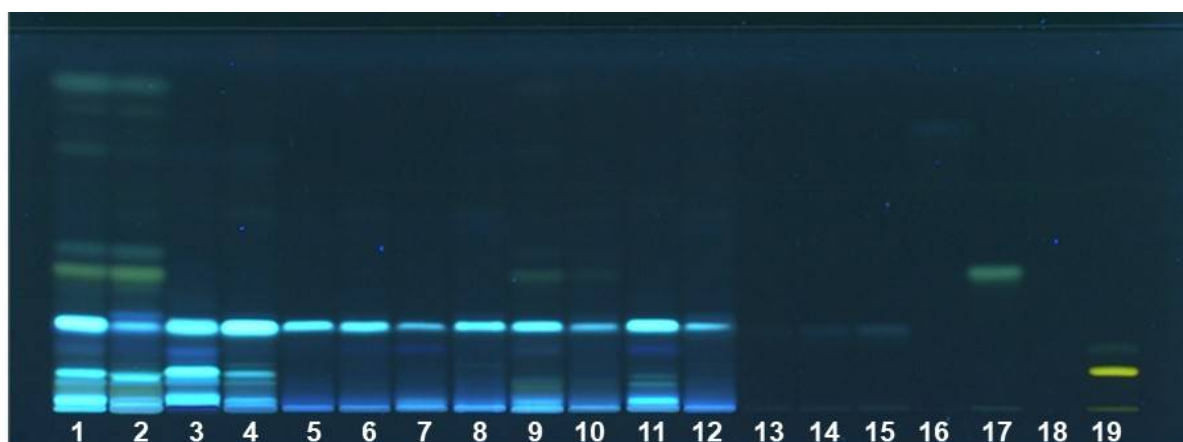
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Figure S1. High-performance thin-layer chromatography (HPTLC) of the polyphenolic compounds of DR2B and DR2C peel extracts from *Solanum melongena* L. collected at commercial and physiological stage of ripeness. (A) Visualization at 366 nm without derivatization. (B) Visualization at 366 nm after Natural Product Reagent (NPR) derivatization. (C) Visualization at 366 nm after anisaldehyde/NPR derivatization. (D) Visualization under white light after NPR and anisaldehyde derivatization. (E) Visualization at 255 nm. The chromatograms correspond to: control aubergine peel at physiological ripeness (track 1); DR2C peel (track 2); control aubergine peel at commercial ripeness (track 3); DR2B peel (track 4); control aubergine pulp at physiological ripeness (track 5); DR2C pulp (track 6); control aubergine pulp at commercial ripeness (track 7); DR2B pulp (track 8); control aubergine edible part at physiological ripeness (track 9); DR2C edible part (track 10); control aubergine edible part at commercial ripeness (track 11); DR2B edible part (track 12); chlorogenic acid 0.25  $\mu\text{g/ml}$  (track 13); chlorogenic acid 0.5  $\mu\text{g/ml}$  (track 14); chlorogenic acid 1  $\mu\text{g/ml}$  (track 15); caffeic acid (track 16); apigenin (track 17); epicatechin (track 18); rutin (track 19).

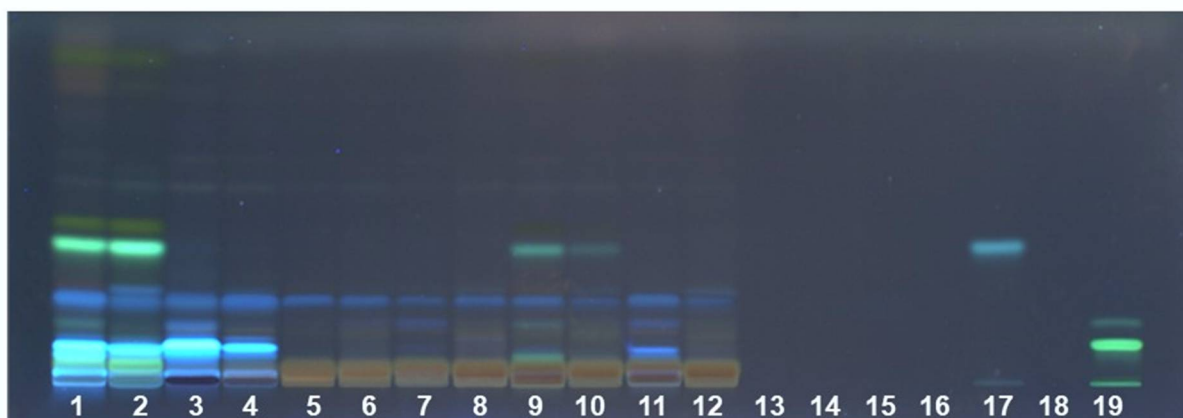
A



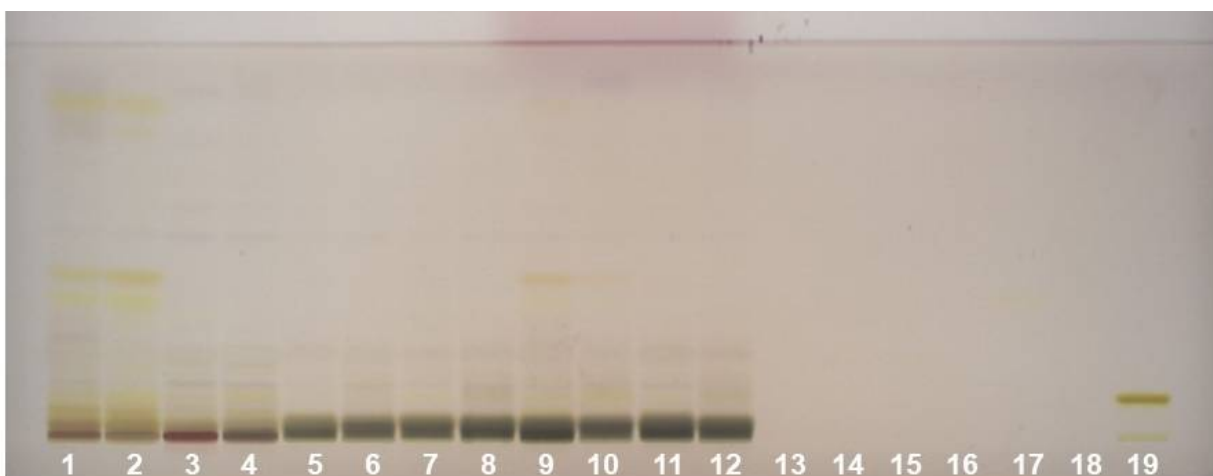
**B**



**C**



**D**



**E**

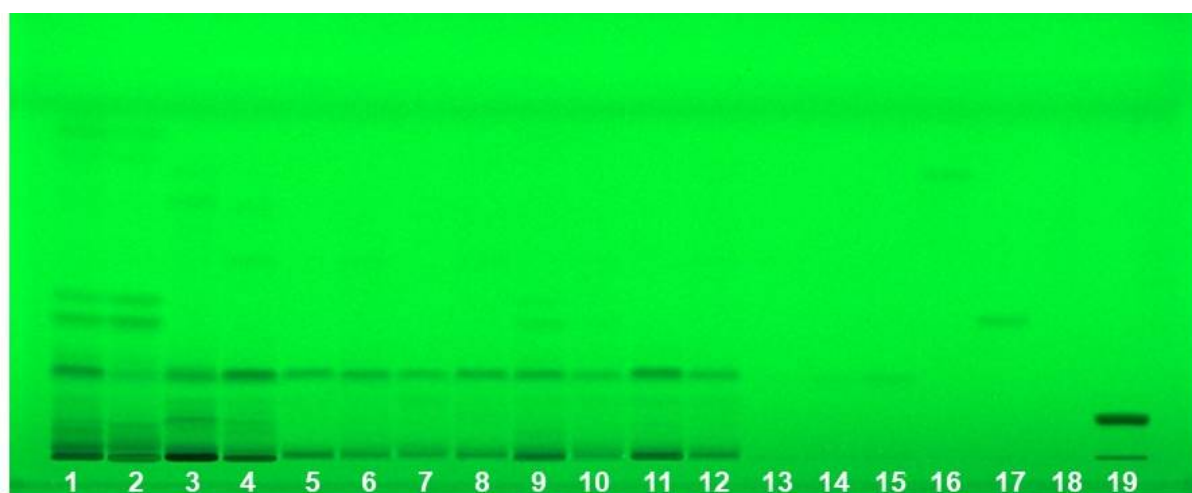
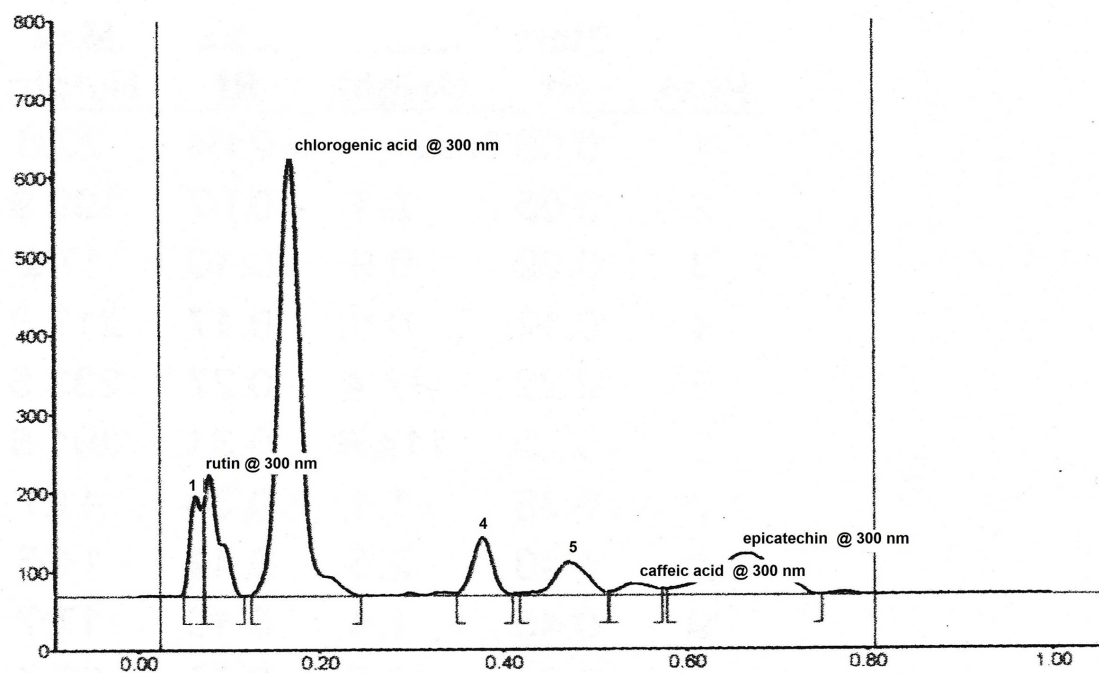


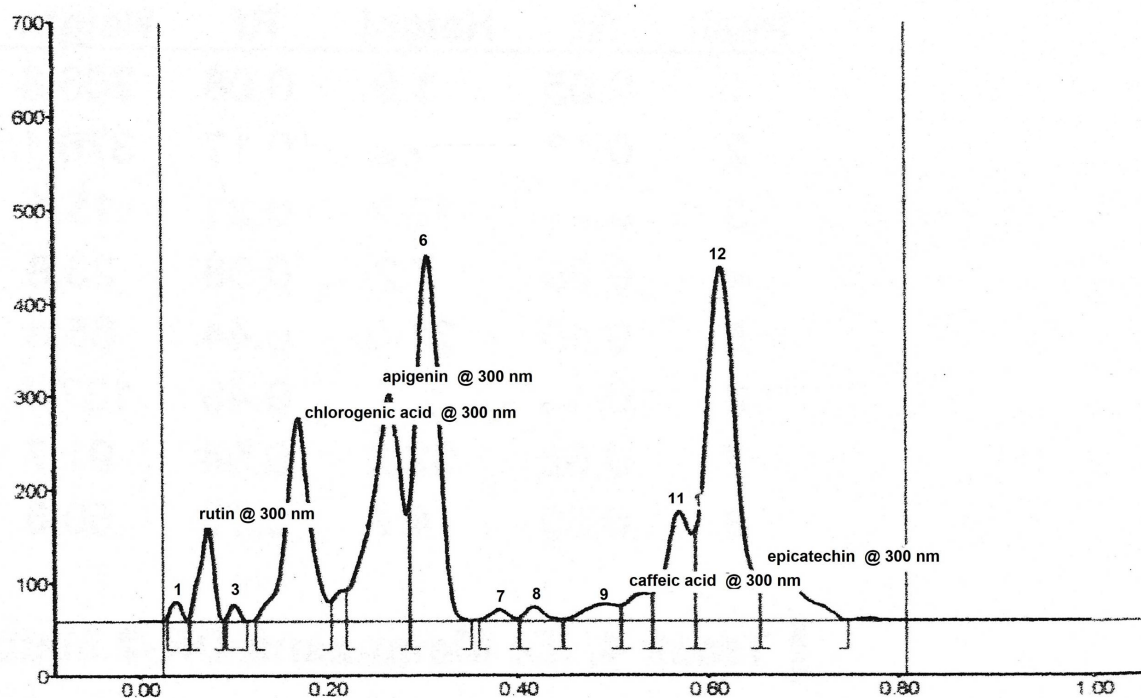
Figure S2. HPTLC (300 nm) chromatograms and densitometric analysis (peak list, Rf values and abundance of revealed compounds) of DR2B (A) and DR2C (B) peel extracts from *Solanum melongena* L.

A



Peak	Start Rf	Start Height	Max Rf	Max Height	Max %	End Rf	End Height	Area	Area %	Assigned substance
1	0.05	0.3	0.06	126.9	12.47	0.07	108.0	1631.5	6.30	unknown
2	0.07	110.9	0.08	153.3	15.06	0.11	0.0	2670.1	10.31	rutin
3	0.12	0.1	0.17	557.0	54.74	0.24	0.1	14202.7	54.82	chlorogenic acid
4	0.35	2.9	0.38	72.8	7.16	0.41	1.8	1610.7	6.22	unknown
5	0.42	2.5	0.47	41.1	4.03	0.51	3.9	1524.8	5.89	unknown
6	0.51	3.9	0.54	14.4	1.41	0.57	7.6	513.3	1.98	caffeic acid
7	0.58	7.7	0.67	52.0	5.11	0.75	0.0	3755.2	14.49	epicatechin

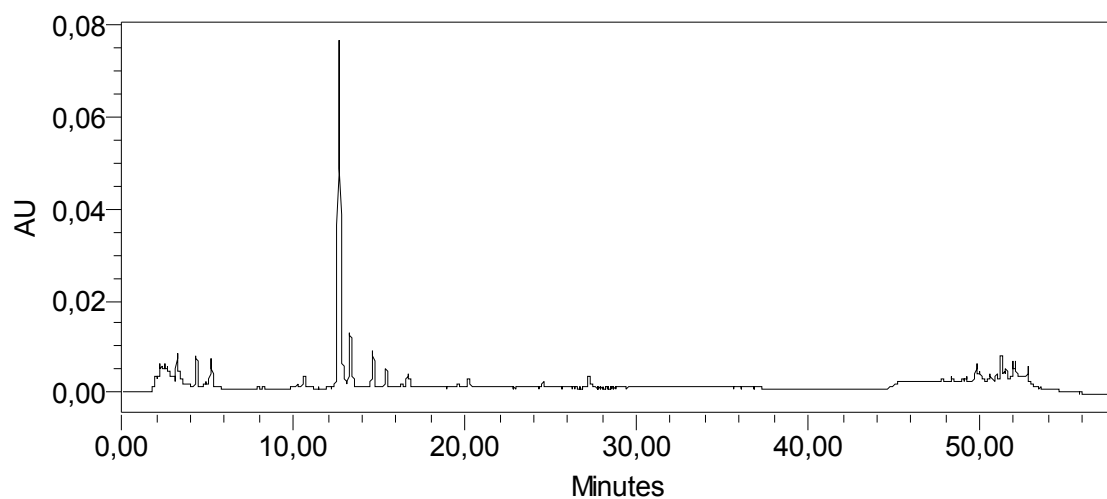
B



Peak	Start Rf	Start Height	Max Rf	Max Height	Max %	End Rf	End Height	Area	Area %	Assigned substance
1	0.03	1.0	0.04	20.6	1.29	0.05	1.1	249.4	0.57	unknown
2	0.05	2.1	0.07	100.9	6.31	0.09	0.8	1537.9	3.51	rutin
3	0.09	0.9	0.10	17.2	1.08	0.11	0.5	185.3	0.42	unknown
4	0.12	0.5	0.17	217.3	13.59	0.20	19.8	5724.7	13.07	chlorogenic acid
5	0.22	32.4	0.27	233.5	14.60	0.29	111.7	7573.2	17.30	apigenin
6	0.29	114.6	0.31	391.6	24.49	0.35	0.1	9577.4	21.87	unknown
7	0.36	1.1	0.38	11.7	0.73	0.40	2.3	225.0	0.51	unknown
8	0.40	2.5	0.42	14.6	0.92	0.45	1.4	293.6	0.67	unknown
9	0.45	1.4	0.49	17.7	1.10	0.51	15.5	596.7	1.36	unknown
10	0.51	15.6	0.53	28.7	1.80	0.54	27.8	670.7	1.53	caffeic acid
11	0.54	28.0	0.57	115.8	7.24	0.59	90.6	3004.8	6.86	unknown
12	0.59	91.5	0.61	378.7	23.68	0.65	49.1	11864.1	27.10	unknown
13	0.65	49.1	0.67	50.7	3.17	0.75	0.0	2282.8	5.21	epicatechin

Figure S3. HPLC-PDA (278 nm) chromatograms of DR2B and DR2C peel extracts from *Solanum melongena* L. DR2 genotype at commercial (A) and physiological (B) stage of ripeness.

**A**



**B**

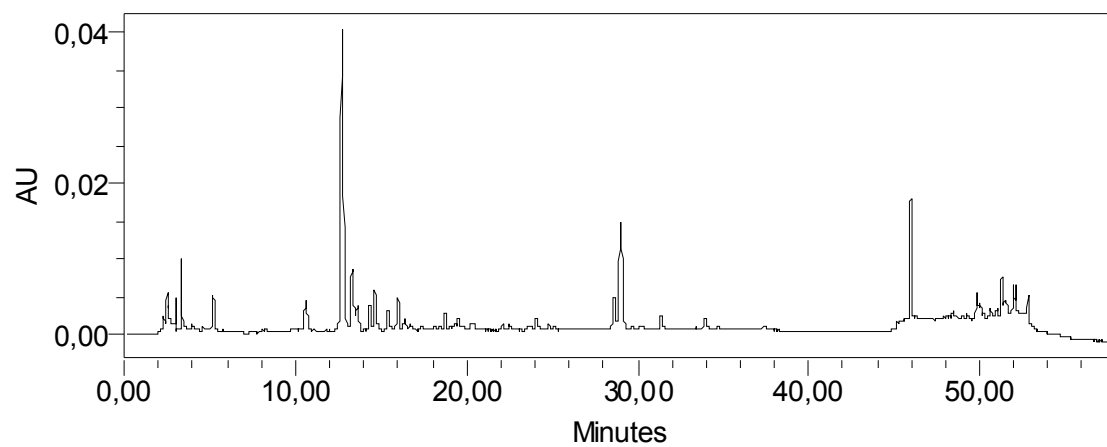
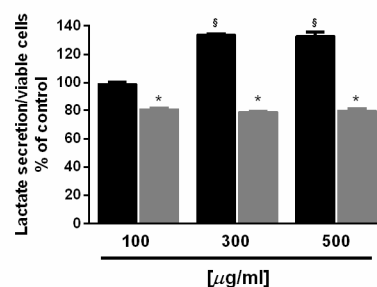
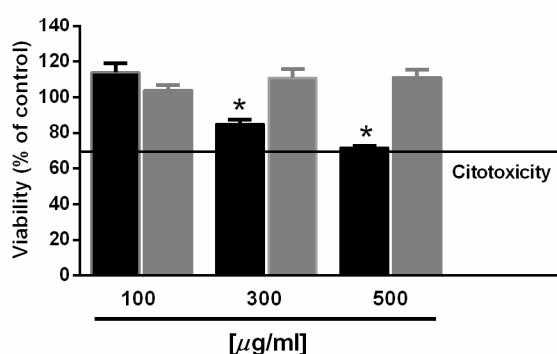


Figure S4. Effect of DR2B and DR2C peel extracts from *Solanum melongena* L. DR2 genotype on the viability and lactate secretion of Caco2 cells under normoxia and cobalt chloride (CoCl<sub>2</sub>)-induced hypoxia. Cell viability expressed as % of control. Data are mean  $\pm$  SE from two independent biological replicates, each one performed in at least three technical replicates ( $n = 2$ ). \*\*  $p < 0.01$  vs tBOOH by ANOVA followed by Dunnett's Multiple Comparison Post Test.

■ Ethanolic extract from *Solanum melongena* DR2B peel  
 ■ Ethanolic extract from *Solanum melongena* DR2C peel

#### Normoxia



#### CoCl<sub>2</sub>-induced hypoxia

