Supplementary Materials

Table legends

Table 1S. Mass spectrometry experimental parameters.

Table 2S. Experimental data of carbohydrates, rutin and 5-CGA calibration curves (Limit of detection (LOD) and of quantification (LOQ) were determined as the concentration of the standards providing signal to noise ratio (S/N) equal to 3 and 10, respectively).

Figure legends

Fig. 1S. Cell Viability Inhibition (CVI, %) ± SD of different dose levels of PaDRw (100, 200, and 400 μg/mL) by SRB test on SH-SY5Y cell line at 48 h exposure time. Values are reported as mean ± SD of measurements carried out on 3 samples (n = 3) analyzed 12 times. Vbn = vinblastine; Tx = Trolox®

Fig. 2S. PaDRw (a) UV-Vis spectrum; (b) LC-UV chromatogram recorded at 280 nm; (c) TIC chromatogram recorded in negative ion mode

Figure 3S. Main phenol and polyphenol metabolites identified in PaDRw-2 fraction.

Table 1S.

	PaDRw-1	**PaDRw-2**
Nebulisation gas (N_2) flow rate (L/h)	30	50
Desolvation gas (N_2) flow rate (L/h)	300	500
Source T (°C)	110	120
Desolvation T (°C)	400	500
Capillary voltage (kV)	3.0	2.8
Cone voltage (V)	10-55	10-55

Table 2S.

standard	Range	Calibration curve	R^2	LOD[a]	LOQ[a]	RSD%[b]	RSD%[c]
fructose	0.5-10 mg/mL	$y = 478869\,x + 509615$	0.9855	2.7	8.5	2.2-3.8	0.5-1.3
glucose	0.5-4 mg/mL	$y = 504332\,x + 590484$	0.9974	2.5	10.1	1.8-3.3	0.7-1.6
sucrose	0.015-0.3 mg/mL	$y = 4E+06\,x + 30790$	0.9998	1.2	4.3	1.9-2.7	0.6-2.6
rutin	0.01875-0.6 mg/mL	$y = 123253x + 223.48$	0.9999	4.68	18.7	3.1-4.6	0.3-3.0
5-CGA	0.0156-10 mg/mL	$y = 210216x - 2677.2$	0.9992	3.9	15.6	0.5-2.7	0.2-2.1

[a] *Expressed as ng on column*

[b] *Inter-day precision, expressed as relative standard deviation (RSD (%) = (SD/mean) ×100)*

[c] *Intra-day precision, expressed as relative standard deviation (RSD (%) = (SD/mean) ×100)*

Fig. 1S.

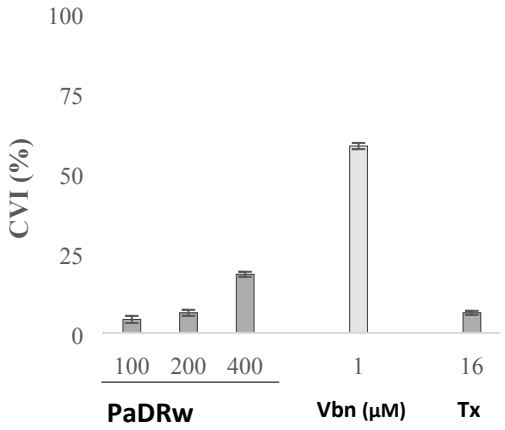


Fig. 2S.

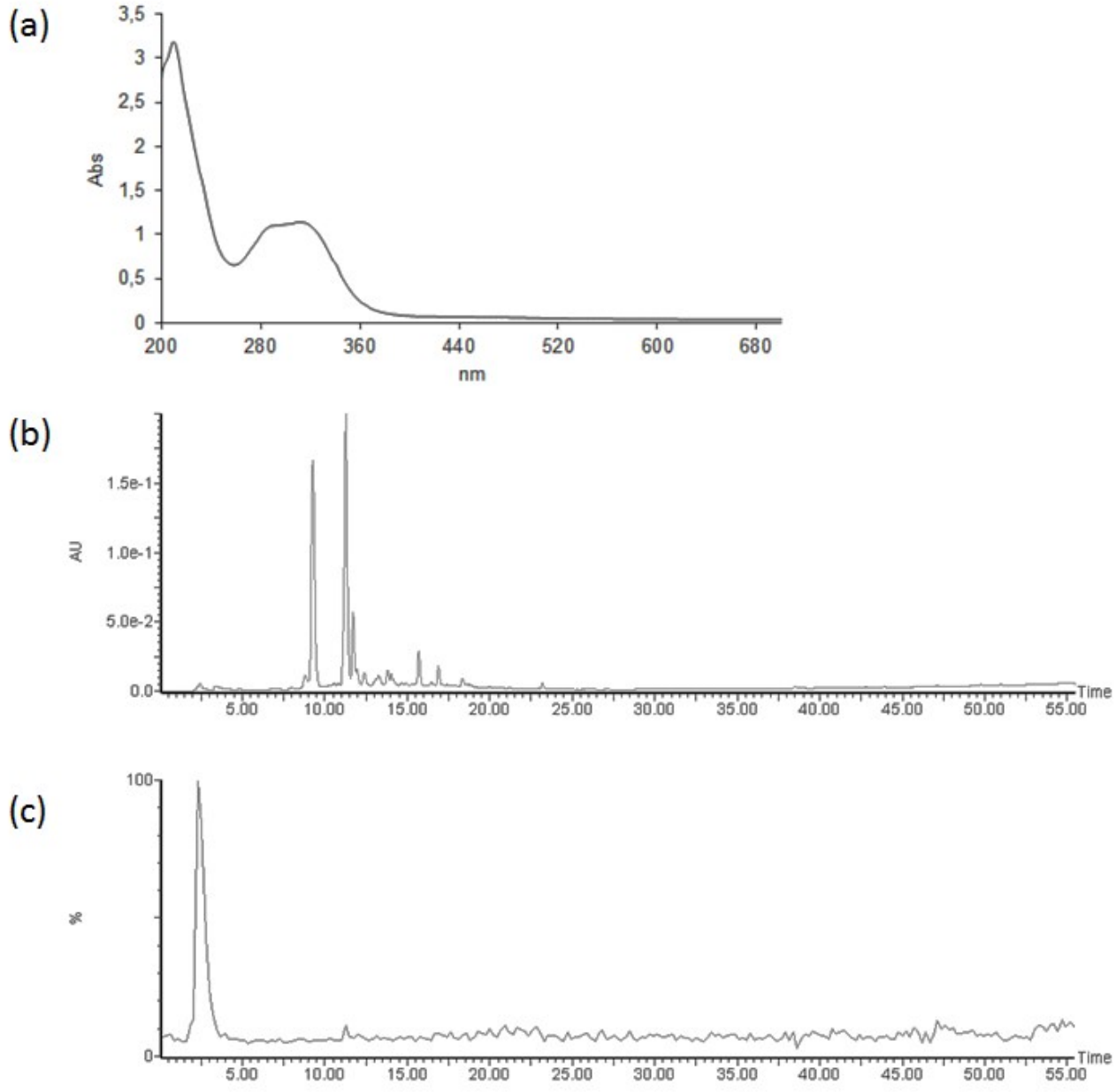
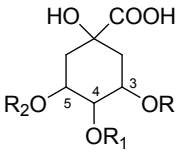
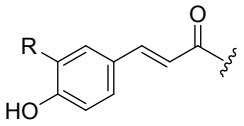


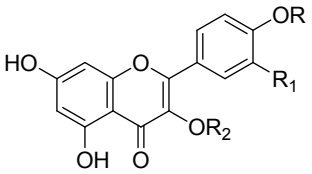
Fig. 3S.



1' R = caffeoyl; $R_1 = R_2 = H$
2' R = *p*-coumaroyl; $R_1 = R_2 = H$
3' $R = R_1 = H$; R_2 = caffeoyl
4' $R = R_2 = H$; R_1 = caffeoyl
7' $R = R_1 = H$; R_2 = *p*-coumaroyl
8' $R = R_2 = H$; R_1 = *p*-coumaroyl
10' $R = R_2$ = caffeoyl; $R_1 = H$



R = OH caffeoyl
R = H *p*-coumaroyl



9' R = hexose; R_1 = OH; R_2 = rutinose
11' R = H; R_1 = OH; R_2 = rutinose
12' R = H; R_1 = OH; R_2 = hexose
13' $R = R_1 = H$; R_2 = rutinose
14' $R = R_1 = H$; R_2 = hexose