

Water extract of *Capsella bursa-pastoris* mitigates doxorubicin-induced cardiotoxicity by upregulating antioxidant enzymes

Supplementary information: Table S1 – S4

Table S1. Selected ion groups of metabolites quantified from CBW by UPLC-QTOF MS.

Compound	Retention time (min)	Ionization Mode	Precursor ion (m/z)	Quant. (m/z)	ion Confirm. (m/z)
Apigenin-6,8-di-C-glucoside (vicenin-2)	4.0	+	595	457	325
Isoorientin	4.3	-	447	357	327
Quercetin 3-o-glucoside (isoquercitrin)	4.8	+	465	303	-
Luteolin-7-O-glucoside	4.9	+	449	287	153
Isorhamnetin-3-rutinoside (Narcissoside)	5.1	+	625	317	479
Quercetin 3-O-(6"-acetyl-glucoside)	5.3	+	507	303	-
Chrysoeriol-7-O-glucoside (Thermopsoside)	5.5	+	463	301	286
¹³ C ₃ -Catechin (IS)	3.8	+	294	140	124
		-	292	124	109

*IS: Internal standard

Table S2. UPLC-QTOF MS.calibration curve equations and linear correlation coefficients (R^2) for metabolites quantified in CBW samples.

Compounds	Con. Range (µg/g)	Calibration equations	R^2
Apigenin-6,8-di-C-glucoside (vicenin-2)	1-100	$y = 9.2882x - 0.1018$	0.9991
Isoorientin	1-100	$y = 3.0411x + 0.0656$	0.9953
Quercetin (isoquercitrin)	3-o-glucoside 1-500	$y = 0.1152x - 0.0115$	0.9934
Luteolin-7-O-glucoside	10-1000	$y = 1.1906x - 0.0439$	0.9967
Isorhamnetin-3-rutinoside (Narcissoside)	1-100	$y = 6.2196x + 0.8441$	0.9956
Quercetin 3-O-(6"-acetyl-glucoside)	0.5-50	$y = 2.7691x + 0.0364$	0.9925
Chrysoeriol-7-O-glucoside (Thermopsoside)	5-500	$y = 2.1468x + 0.0288$	0.9987

Table S3. Antibodies used in this study

Antibody	Vendor Cat no.	Local	Country	Titer	Usage
aSOD1	cell signaling 37385	Danvers, MA	USA	1:4000	
aSOD2	cell signaling 13141	Danvers, MA	USA	1:5000	
aCatalase	cell signaling 14097	Danvers, MA	USA	1:3000	
aHO-1	cell signaling 43966	Danvers, MA	USA	1:3000	
ap-JNK	cell signaling 4668	Danvers, MA	USA	1:3000	
aJNK	cell signaling 9252	Danvers, MA	USA	1:3000	
ap-p38	cell signaling 4511	Danvers, MA	USA	1:3000	
ap38	cell signaling 9212	Danvers, MA	USA	1:3000	W.B
ap-ERK	cell signaling 8544	Danvers, MA	USA	1:3000	
aERK	cell signaling 4695	Danvers, MA	USA	1:3000	
aNRF1	cell signaling 46743	Danvers, MA	USA	1:3000	
aNRF2	cell signaling 20733	Danvers, MA	USA	1:3000	
aCleaved-Caspase3	cell signaling 9661	Danvers, MA	USA	1:3000	
aPARP	cell signaling 9542	Danvers, MA	USA	1:3000	
ab-actin	cell signaling 4967	Danvers, MA	USA	1:3000	

Abbreviation: α SOD1, anti-Superoxide dismutase1; α SOD2, anti-Superoxide dismutase2; α HO-1, anti-Heme oxygenase-1; α p-JNK, anti-phospho-c-Jun N-terminal kinase; α JNK, anti-c-Jun N-terminal kinase; α p-p38, anti-phospho-p38 Mitogen-activated protein kinase; α p38, anti-p38 Mitogen-activated protein kinase; α p-ERK, anti-phospho-Extracellular signal-regulated kinase; α ERK, anti-Extracellular signal-regulated kinase; α NRF1, anti-Nuclear respiratory factor1; α NRF2, anti-Nuclear factor erythroid-derived-like 2; α PARP, anti-Poly (ADP-ribose) polymerase; α β -Actin, anti-beta Actin; W.B, Western blotting

Table S4. Primers used in this study for q-PCR

Gene		Sequence (5'-3')	Usage
<i>Gapdh</i>	Forward	AGACAGCCGCATCTTCTTGT	qPCR
	Reverse	CTTGCCGTGGGTAGAGTCAT	
<i>Nrf2</i>	Forward	CTACAGTCCCAGCAGGACAT	
	Reverse	TTTGGGAATGTGGGCAACCT	
<i>Nrf1</i>	Forward	GGCGCAGCACCTTTGGAGAATGTG	
	Reverse	CATCGATGGTGAGAGGGGGCAGTTC	
<i>Sod1</i>	Forward	TGTGTCCATTGAAGATCGTGTG	
	Reverse	CTTCCAGCATTTCCAGTCTTTG	
<i>Sod2</i>	Forward	GGACAAACCTGAGCCCTAAG	
	Reverse	CAAAAGACCCAAAGTCACGC	
<i>Ho-1</i>	Forward	GTCCCAGGATTTGTCCGAGG	
	Reverse	GGTACAAGGAGGCCATCACC	

Abbreviation: *Gapdh*, Glyceraldehyde-3-phosphate dehydrogenase; *Nrf2*, Nuclear factor erythroid-derived-like 2; *Nrf1*, Nuclear respiratory factor1; *Sod1*, Superoxide dismutase1; *Sod2*, Superoxide dismutase2; *Ho-1*, Heme oxygenase-1; qPCR, Quantitative polymerase chain reaction.