

Supplementary information

Identification of hepatoprotective xanthones from the pericarps of *Garcinia mangostana*, guided with *tert*-butyl hydroperoxide induced oxidative injury in HL-7702 cells

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Table S1. Cytotoxicity of total extract and fractions from the pericarps of *G. mangostana* on HL-7702 cells.

NO	Fraction	Cell viability (%) ¹		
		1.25 $\mu\text{g mL}^{-1}$	2.50 $\mu\text{g mL}^{-1}$	5.00 $\mu\text{g mL}^{-1}$
1	T.E	103.01 $\pm$ 3.71	102.43 $\pm$ 5.15	65.65 $\pm$ 2.12
2	P.E	106.02 $\pm$ 5.23	98.83 $\pm$ 3.54	74.25 $\pm$ 1.53
3	Chloro	107.91 $\pm$ 5.43	105.23 $\pm$ 4.87	51.23 $\pm$ 3.45
4	E.A	101.92 $\pm$ 6.25	102.55 $\pm$ 4.83	66.37 $\pm$ 1.46
5	<i>n</i> -Bu	96.62 $\pm$ 1.41	99.93 $\pm$ 4.36	78.51 $\pm$ 2.62
6	Water	100.63 $\pm$ 2.14	98.15 $\pm$ 7.24	79.71 $\pm$ 1.83

¹ values are expressed as means $\pm$ SD (n=6). Cell viability of the untreated group was considered as 100%. Cell viability less than 90% was considered as significant cytotoxicity and the corresponding concentration was not suitable for further experiments.

Table S2. Cytotoxicity of xanthenes from the pericarps of *G. mangostana* on HL-7702 cells.

	Compound	Cell viability (%) ¹			
		0.63 μ M	1.25 μ M	2.50 μ M	5.00 μ M
1	γ -mangostin	103.13 $\pm$ 5.21	103.74 $\pm$ 3.75	106.03 $\pm$ 5.91	102.65 $\pm$ 1.23
2	1,3,6,7-tetrahydroxy-8-prenylxanthone	93.44 $\pm$ 5.36	99.53 $\pm$ 2.74	94.73 $\pm$ 6.41	92.97 $\pm$ 1.95
3	gartanin	91.33 $\pm$ 4.13	92.93 $\pm$ 1.74	93.63 $\pm$ 1.25	68.84 $\pm$ 0.59
4	garcinone E	94.74 $\pm$ 0.83	94.82 $\pm$ 2.45	99.22 $\pm$ 1.57	106.43 $\pm$ 2.35
5	8-deoxygartanin	96.01 $\pm$ 8.41	98.47 $\pm$ 8.35	94.11 $\pm$ 6.24	72.02 $\pm$ 4.04
6	β -magostin	92.47 $\pm$ 1.56	95.73 $\pm$ 2.81	98.97 $\pm$ 2.85	63.61 $\pm$ 2.64
7	α -magostin	96.66 $\pm$ 1.87	97.15 $\pm$ 3.46	99.35 $\pm$ 3.36	59.27 $\pm$ 2.48
8	mangosharin	99.43 $\pm$ 6.20	103.33 $\pm$ 3.42	104.01 $\pm$ 6.54	68.92 $\pm$ 5.31
9	9-hydroxycalabaxanthone	95.69 $\pm$ 6.12	98.43 $\pm$ 6.61	89.84 $\pm$ 5.75	75.33 $\pm$ 3.46
10	11-hydroxy-1-isomangostin	94.75 $\pm$ 2.65	95.13 $\pm$ 2.44	98.04 $\pm$ 1.83	95.85 $\pm$ 3.46

¹ values are expressed as means $\pm$ SD (n=6). Cell viability of the untreated group was

considered as 100%; cell viability less than 90% was considered as significant cytotoxicity

and the corresponding concentration was not suitable for further experiments.

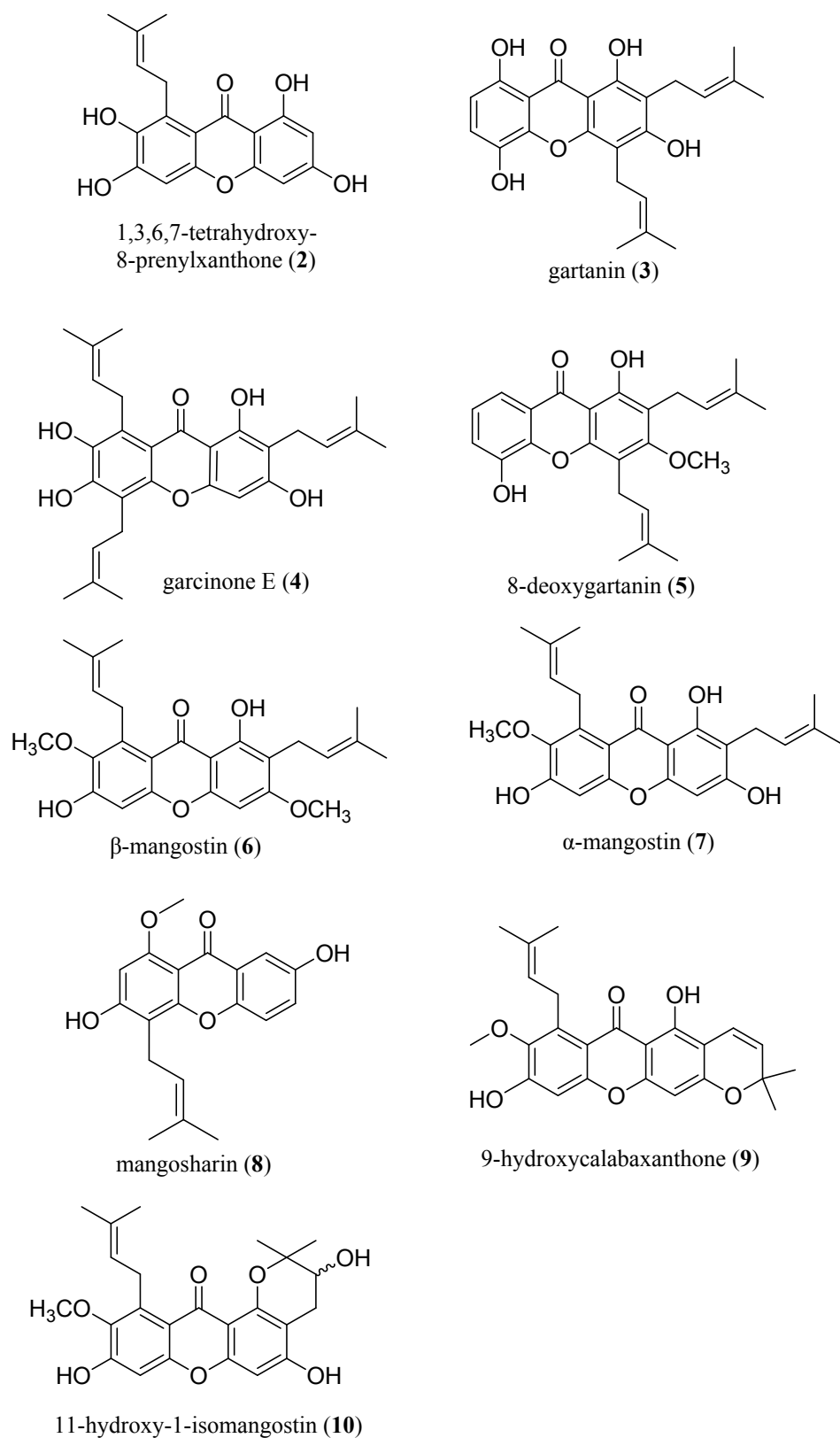


Fig. S1. Chemical structures of xanthones isolated from the pericarps of *G. mangostana*.

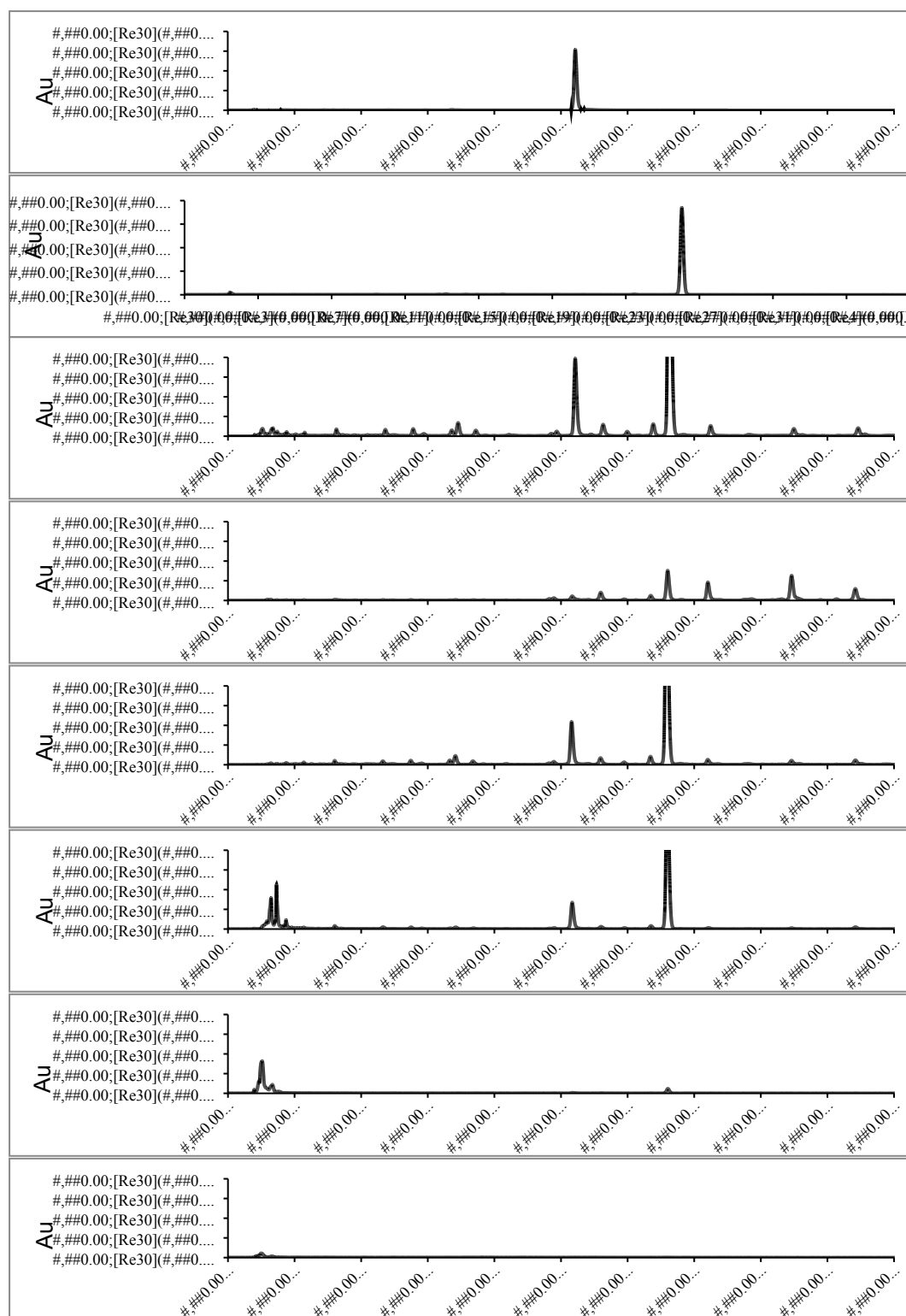


Fig. S2. Chromatogram of γ -magostin, α -magostin, T.E and fractions from the pericarps of *G. mangostana* (from top to bottom represent γ -magostin and α -magostin, 50.00 μ g/mL; T.E, P.E, Chloro, E.A, *n*-Bu and water fraction, 1.00 mg/mL, respectively. Wavelength was set at 254 nm).