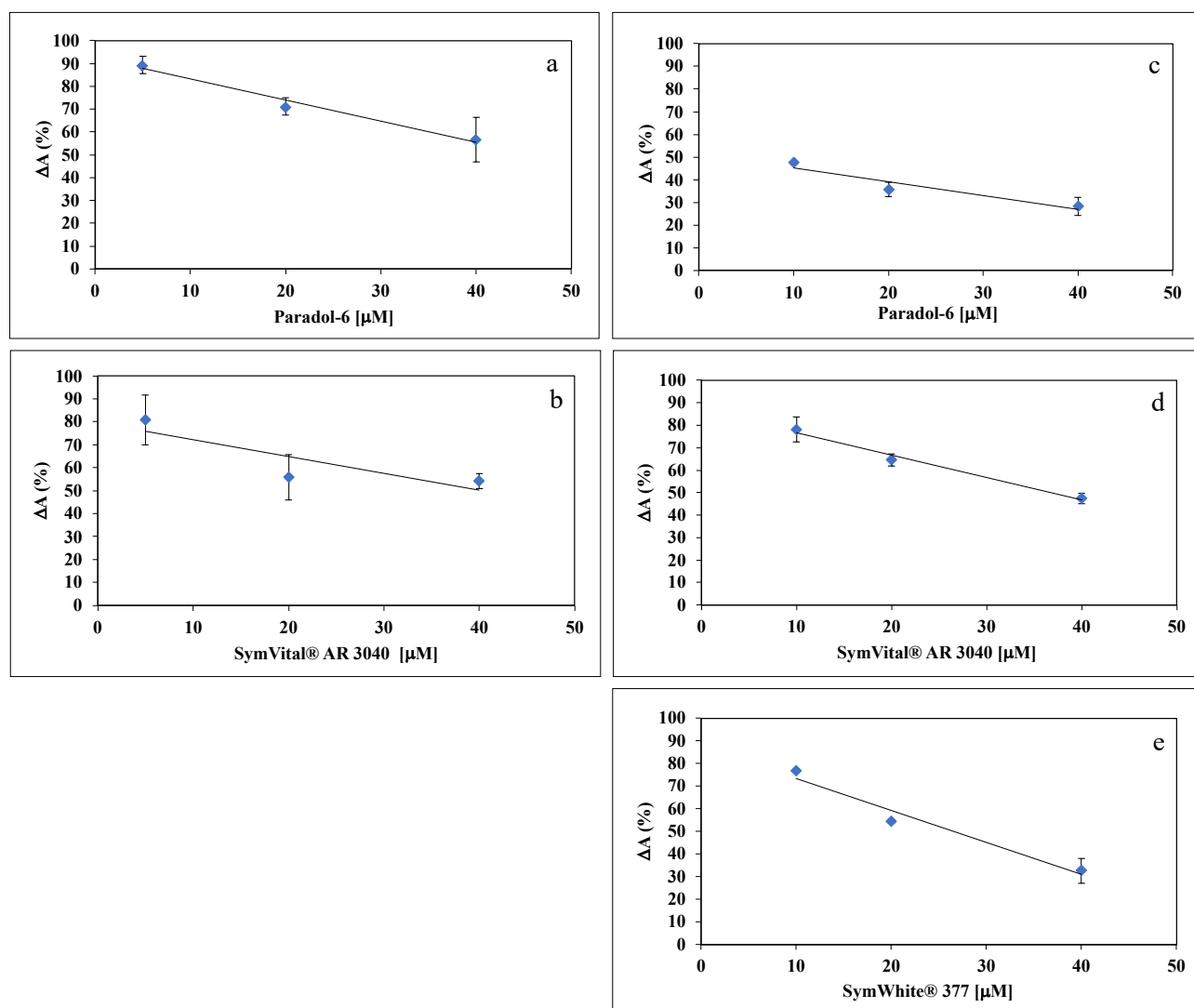


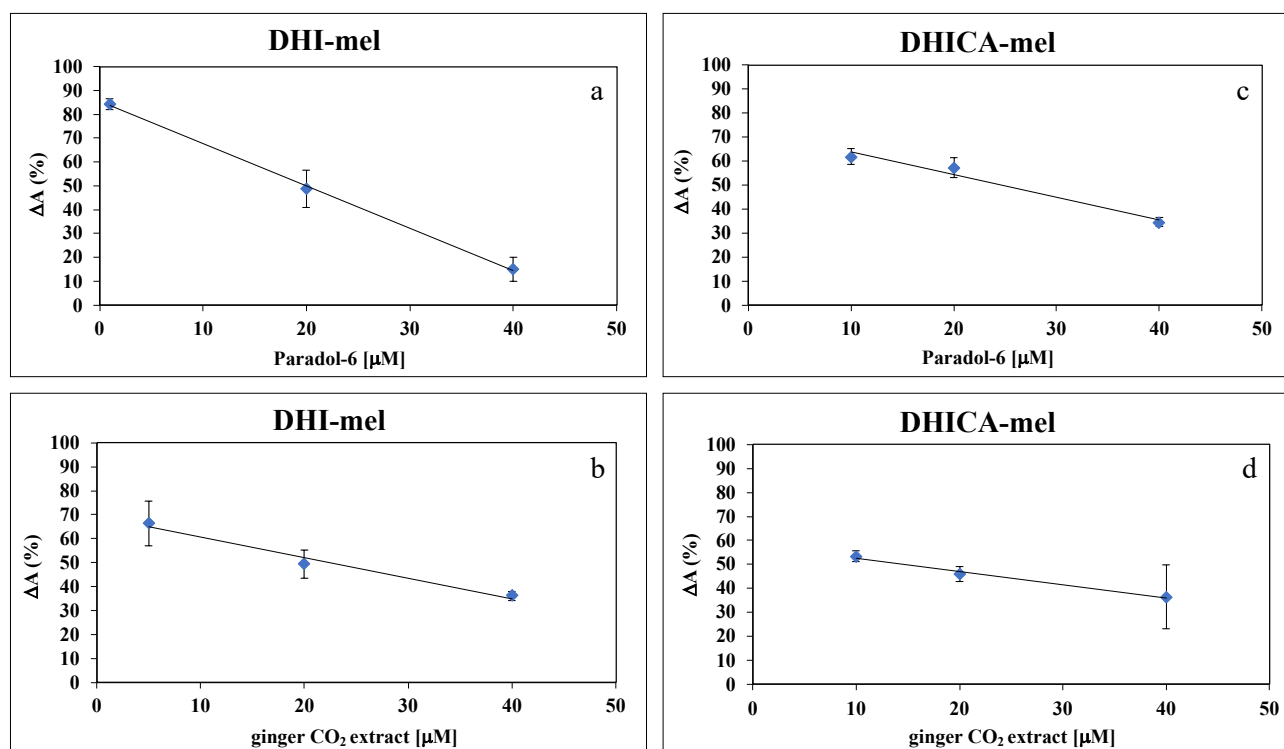
## Supporting Information

### The effect of cosmetic ingredients of phenol type on immediate pigment darkening and their (photo)protective action in association with melanin pigmentation: a model study

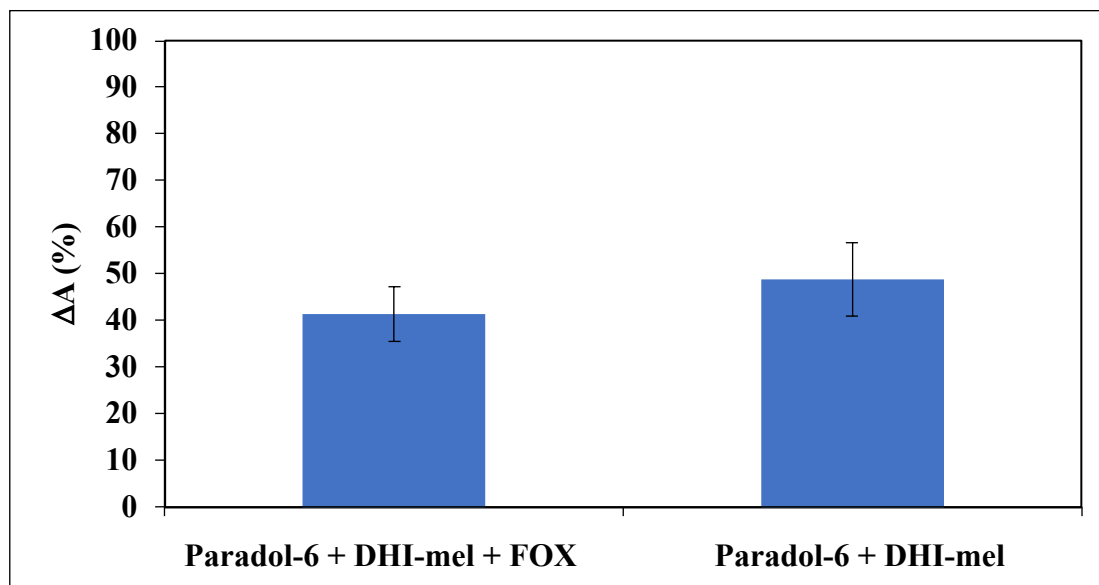
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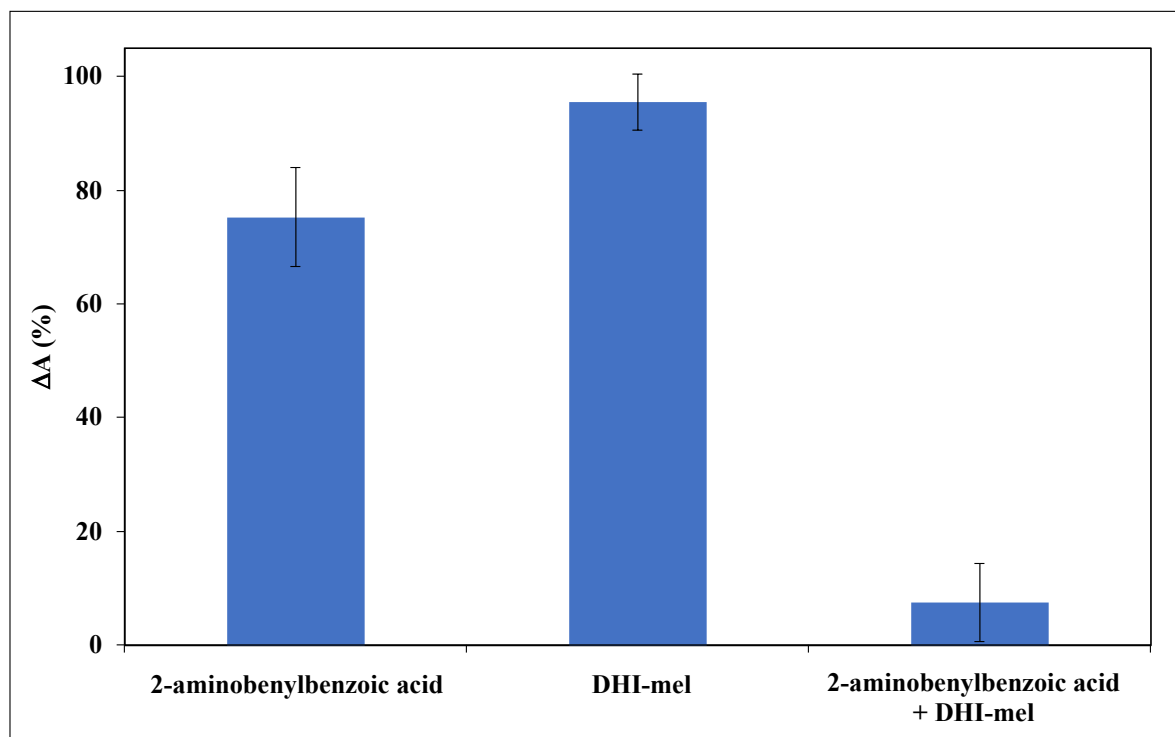
**Figure S1.** Dose-response curves of linoleic acid photooxidation for Paradol-6 and ginger CO<sub>2</sub> extract in the RF sensitized (a, b) and for Paradol-6, ginger CO<sub>2</sub> extract and phenylethyl resorcinol in the RB sensitized process (c, d, e). Data are expressed as mean  $\pm$  SD of three independent experiments, each performed in duplicate.



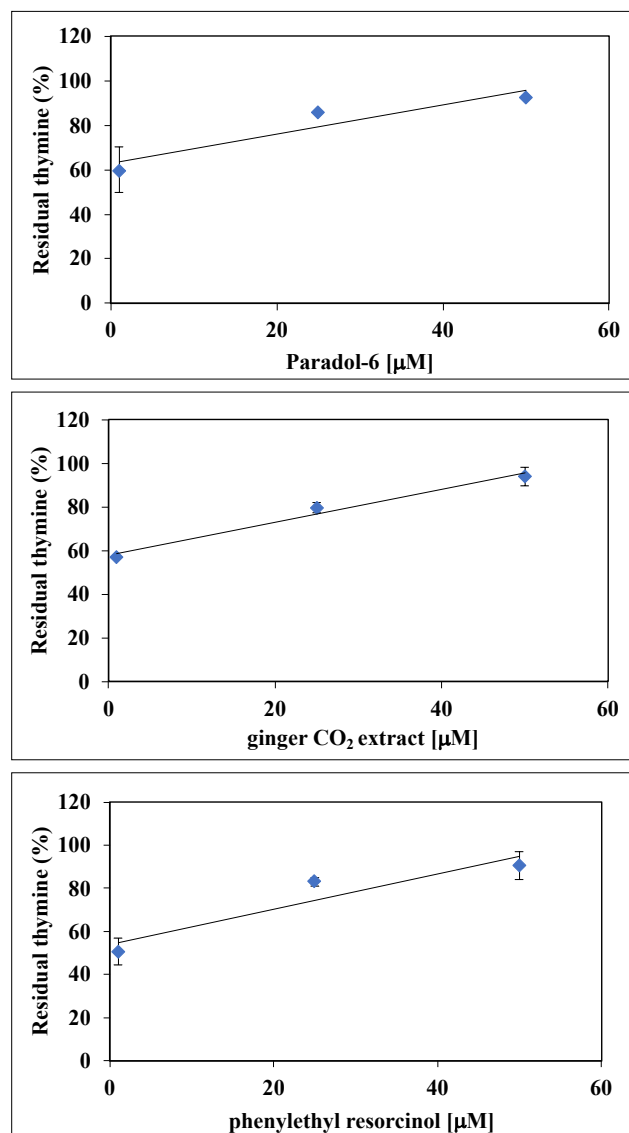
**Figure S2.** Dose-response curves of linoleic acid photooxidation for RF sensitized process using Paradol-6 or ginger CO<sub>2</sub> extract in the presence of 0.05 mg/mL DHI-mel (a, b) or 0.0125 mg/mL DHICA-mel (c, d). Data are expressed as mean  $\pm$  SD of three independent experiments, each performed in duplicate.



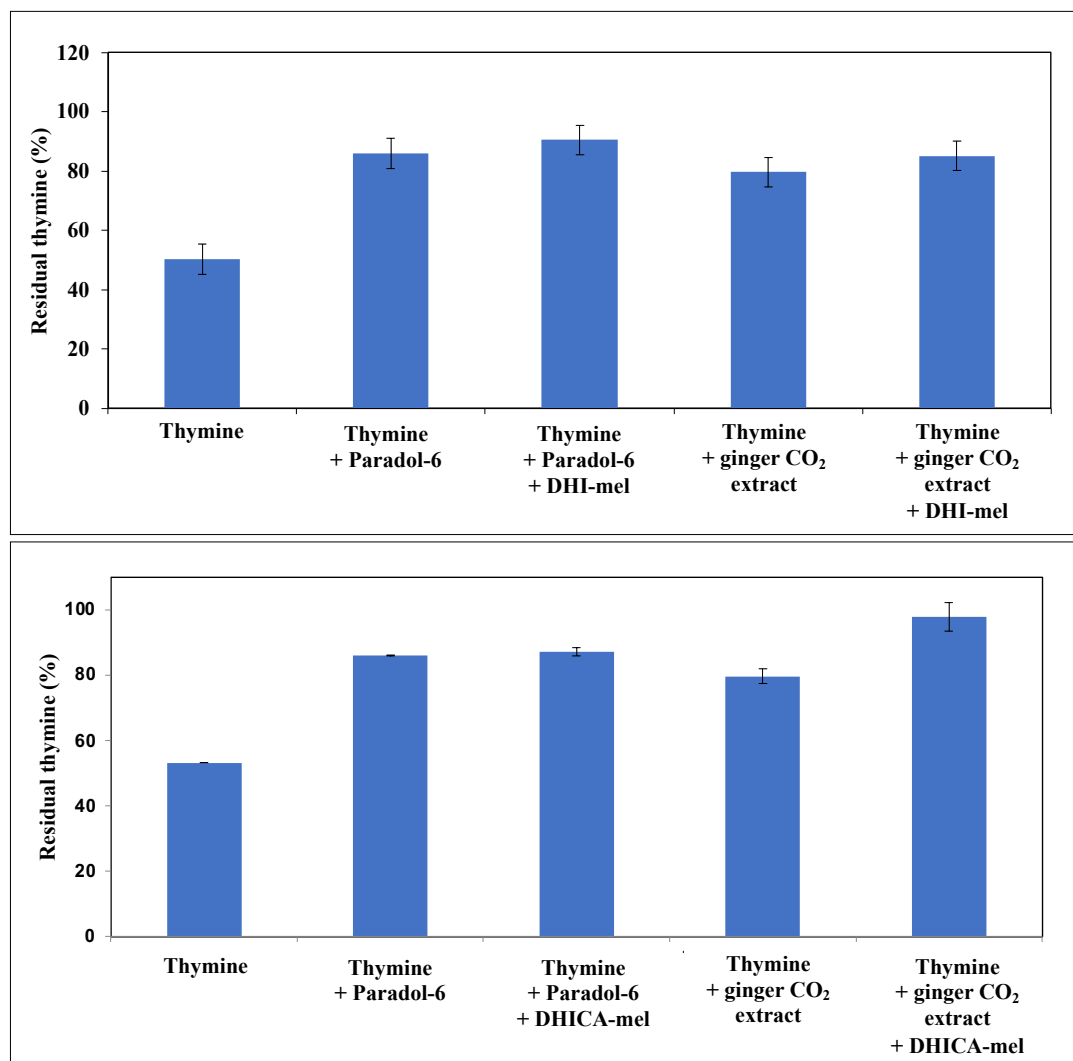
**Figure S3.** Comparative evaluation of lipid peroxidation by monitoring diene formation at 234 nm and hydroperoxide measurement by FOX assay. Data are expressed as mean  $\pm$  SD of three independent experiments, each performed in duplicate.



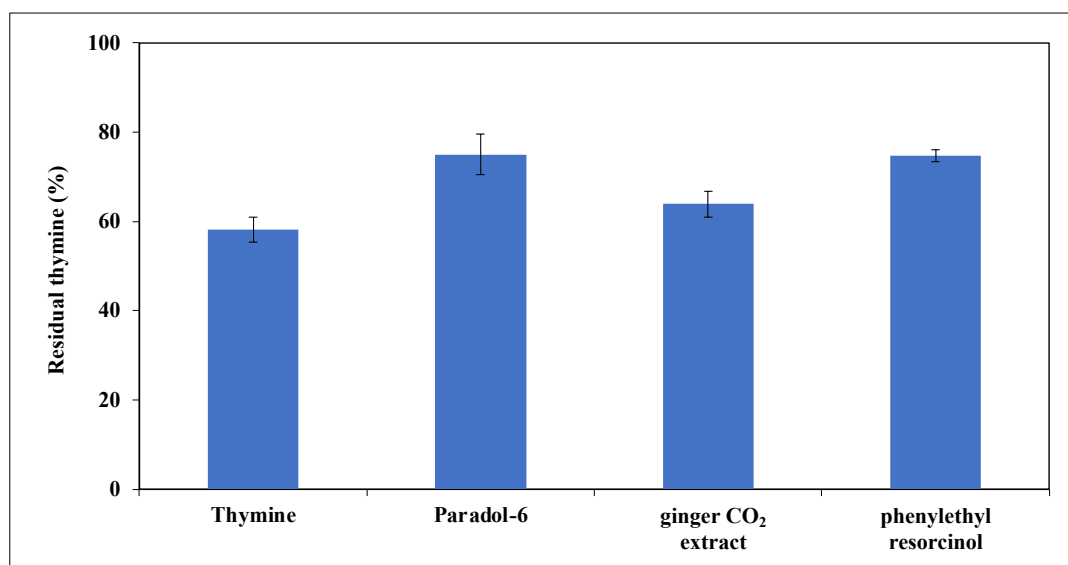
**Figure S4.** Effect of 2-aminobenzylbenzoic acid (20  $\mu$ M) on photoinduced peroxidation of a 250  $\mu$ M suspension of liposomes containing 20  $\mu$ M RB and/or 0.05 mg/mL DHI-mel. Data are expressed as mean  $\pm$  SD of three independent experiments, each performed in duplicate.



**Figure S5.** Dose-response curves for Paradol-6, ginger CO<sub>2</sub> extract and phenylethyl resorcinol in thymine photoirradiation. Data are expressed as mean  $\pm$  SD of three independent experiments, each performed in duplicate.



**Figure S6.** Effect of Paradol-6 and ginger CO<sub>2</sub> extract on thymine photoirradiation in the presence and in the absence of DHI- or DHICA-mel (0.05 and 0.004 mg/mL, respectively). Data are expressed as mean  $\pm$  SD of three independent experiments, each performed in duplicate.



**Figure S7.** Residual thymine expressed as percent compared to control after irradiation with the solar simulator in the presence of CIs at 50  $\mu$ M and RF 50  $\mu$ M over 30 min. Data are expressed as mean  $\pm$  SD of three independent experiments, each performed in duplicate.