

Supplementary material

# Phytochemical screening and bioactive properties of *Juglans regia* L. pollen

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## Content:

**Supplementary Table S1:** Correlation between TP, TF, compounds present in the highest concentration in *J. regia* pollen extract and antioxidant activity.

**Supplementary Table S2:** Correlation between TP, TF, compounds present in the highest concentration in *J. regia* pollen extract and antiproliferation activity.

UPLC chromatogram of *J. regia* pollen extracts and UV-Vis and MS spectra of identified compounds.

**Table S1.** Correlation between TP, TF, compounds present in the highest concentration (quercetin 3-O-sophoroside, kaempferol 3-O-sophoroside, dimethoxyflavone-7-O-beta-D-glucoside) in *J. regia* pollen extract and antioxidant activity determined by ABTS, CUPRAC, ChA, O<sub>2</sub><sup>•</sup>, and OH<sup>•</sup> methods.

	TP	TF	Quercetin 3-O- sophoroside	Kaempferol 3-O- sophoroside	dimethoxyflavone- 7-O-beta-D-gluco- side
<b>ABTS</b>	0.992*	0.681	0.998*	0.999**	0.873
<b>CUPRAC</b>	0.634	0.998*	-0.476	-0.537	-0.486
<b>ChA</b>	-0.999**	0.931	-0.987	-0.988	-0.704
<b>O<sub>2</sub><sup>•</sup></b>	0.513	0.507	0.666	0.622	0.596
<b>OH<sup>•</sup></b>	-0.683	-0.687	-0.533	-0.508	-0.519

(+) positive correlation, (-) negative correlation, \*significant differences at  $p < 0.05$ , \*\* significant differences at  $p < 0.01$ .

**Table S2.** Correlation between TP, TF, compounds present in the highest concentration (quercetin 3-O-sophoroside, kaempferol 3-O-sophoroside, dimethoxyflavone-7-O-beta-D-glucoside) in *J. regia* pollen extract and antiproliferation activity against MCF-7, DLD-1, Caco-2, U87MG, U251MG, SK-Mel-29, and CCD841 CoN cell lines.

	TP	TF	Quercetin 3-O- sophoroside	Kaempferol 3-O- sophoroside	dimethoxyflavone- 7-O-beta-D-gluco- side
<b>MCF-7</b>	-0.971	-0.977*	-0.999*	-0.873	-0.884
<b>DLD-1</b>	0.494	-0.488	-0.644	-0.610	-0.725
<b>Caco-2</b>	-0.676	-0.981*	-0.803	-0.711	-0.632
<b>U87MG</b>	-0.516	-0.590	-0.668	-0.769	-0.703
<b>U251MG</b>	0.098	0.305	-0.090	-0.295	-0.478
<b>SK-Mel-29</b>	-0.358	-0.451	-0.528	-0.678	-0.749
<b>CCD841 CoN</b>	-0.189	-0.195	-0.371	-0.209	-0.331

(+) positive correlation, (-) negative correlation, \*significant differences at  $p < 0.05$ , \*\* significant differences at  $p < 0.01$ .