

# Antiproliferative Activity on Human Cancer Cell Lines after Treatment with Polyphenolic Compounds Isolated from *Iris pseudopumila* Flowers and Rhizomes

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The present study describes the antiproliferative properties of *Iris pseudopumila* flowers and rhizomes extracts and fourteen constituents isolated from them. The *in vitro* cytotoxic activity assay against two human cancer cell lines, large lung carcinoma (CORL-23) and amelanotic melanoma (C32), showed that the most antiproliferative extract was the MeOH extract from flowers with a percentage of inhibition of 50.9 at 100  $\mu\text{g/ml}$  against amelanotic melanoma cells. The most antiproliferative compounds against amelanotic melanoma cells were kaempferol-3-*O*- $\beta$ -D-glucopyranoside and irisolidone with a percentage of inhibition of 100 and 96.6, respectively, and against large lung carcinoma cells with a percentage of inhibition of 82.1 and 84.6, respectively. Significant activity on the amelanotic melanoma cell line was also showed by irigenin-7-*O*- $\beta$ -D-glucopyranoside, with a percentage of inhibition of 89.3. The compounds isovitexin and isoorientin-6-*O*- $\beta$ -D-glucopyranoside showed a selective activity against amelanotic melanoma cells with a percentage of inhibition of 83.2 and 79.8, respectively.

**Key words:** *Iris pseudopumila*, Antiproliferative Activity, Phenolic Compounds