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Chemical Composition and Cytotoxic Activity of *Lepechinia speciosa* (St. Hill) Epling

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***SUMMARY*. The cell viability of *Lepechinia speciosa* (St. Hill) Epling fractions was measured by cell membrane integrity (lactate dehydrogenase assay) on rat basophilic leukemia cells (RBL-2H3). All fractions and extract tested (100 μg/ml) increased the release of lactate dehydrogenase (LDH), being the ethyl acetate and dichloromethane fractions with LDH release of 94.5% and 91.2%, respectively. As these fractions showed decrease of cell viability, the antiproliferative activity on human breast adenocarcinoma cells (MCF-7) through sulphorhodamine B (SRB) assay was performed with them. The dichloromethane fraction (50 μg/ml) displayed the maximum activity (95% of inhibition) (IC_{50} = 1.99 ± 0.06 μg/ml). From this fraction was obtained a mixture containing two triterpenes (ursolic and oleanolic acids) and one fatty acid (palmitic acid), which were identified by gas chromatography coupled to mass spectrometry (GC-MS) and had their structures confirmed by ^{13}C NMR. Rosmarinic acid and verbascoside were isolated from the ethyl acetate fraction and had their structures confirmed by ^{1}H NMR.**

KEY WORDS: Cell viability, Lamiaceae, *Lepechinia speciosa,* Oleanolic acid, Ursolic acid.

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