

New Bioactive Metabolites from a Crown Gall Induced on an *Eucalyptus tereticornis* Sm. Tree

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Applying a bioactivity-guided isolation strategy for the ethanolic extract of crown gall tumours induced on an *Eucalyptus tereticornis* tree, two new compounds in addition to a known one were isolated. The new compounds were identified as an amino acid derivative named 1-ethyl-6-(1'-methyl-1'-phenylethyl) piperidin-2-one (**1**) and a lanostane tetracyclic triterpene named 3-hydroxy-24-methyl-28-norlanosta-8,17(20),24(28)-trien-22-oic acid (**2**), together with stigmasterol-3-*O*-glucoside (**3**). The three compounds exhibited significant cytotoxic activity against two human cell lines, breast (MCF7) and colon (HCT116), with IC₅₀ values of 1.01, 1.54, and 2.15 µg/ml, respectively, against MCF7 and 3.49, 3.83, and 3.39 µg/ml, respectively, against HCT116. Furthermore, in rats elevated levels of blood cholesterol, triglycerides, and low-density lipoprotein (LDLc) were significantly reduced, while the level of high-density lipoprotein (HDLc) was significantly increased by administration of the ethanolic extract as well as of **3**. These results support a correlation between the reduction of blood cholesterol levels and improvement of colorectal cancer.

Key words: Crown Gall, New Amino Acid Derivatives, Colorectal Cancer