

Thesis Title	Chemical Compositions and Pharmacological Properties of <i>Trichosanthes cucumerina</i> L. Root
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Abstract

A study on chemical composition of *Trichosanthes cucumerina* L. root, a Thai medicinal plant, which has been used traditionally as remedies for purgative, fever and bronchitis, revealed the presence of four triterpenes. They were isolated from the chloroform extract. Two triterpenes were novel pentacyclic triterpenes, SC1(C₃₀H₄₈O₃) and SC4(C₃₀H₄₆O₃), and the other two were known tetracyclic triterpenes, SC2(C₂₉H₄₈O) and its dihydro derivative SC3(C₂₉H₅₀O). The structure of the isolated compounds were elucidated by 1D- and 2D-NMR spectroscopy. The compounds SC1, SC2, SC3 and SC4 were identified as 3 β -hydroxy-olean-13(18)-ene-28-oic, 24 β -ethyl-cholest-7,22-diene-3 β -ol, 24 ξ -ethyl-cholest-7-en-3 β -ol and 3-oxo-olean-13(18)-ene-30-oic, respectively. The compound SC4 and the alcohol extract were found to be cytotoxic against the leukemic cell culture (P388), with ED₅₀ = 60 μ g/ml and 0.3 μ g/ml, respectively. The isolated compounds and the alcohol extract did not show antimicrobial activity against *Staphylococcus aureus* ATCC 25925, *Bacillus subtilis* ATCC 6633, *Escherichia coli* ATCC 25922, *Pseudomonas aeruginosa* ATCC 10045, *Sarcina lutea* ATCC 9341, *Candida albicans* ATCC 10231, *Bacillus cereus*.