

Acute oral toxicity of partially purified Plaunotol extract

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This study aims to evaluate the acute oral toxicity of natural extract from *Croton stellatopilosus* Ohba (Plau-noi) in ICR mice. Plau-noi is a Thai medicinal plant which has been used for treatment of gastric ulcer base on the pharmacotherapeutic effect of its active compound, plaunotol. The partially purified plaunotol extract (PPE) was simply prepared by 95% ethanol reflux extraction followed by hexane partition. TLC and GC-MS analysis presented 43% w/w of plaunotol and a fatty acid-plaunotol conjugate as major impurity in PPE, respectively. Five males and five females of mice were orally administrated with single dose of either water for control group or PPE at 2.5, 5, 10 and 20 g/kg for each test group. The results indicated that PPE was classified as a practical nontoxic according to the median lethal dose value (LD_{50}) of 10.25 g/kg (95% confidence limit was 7.37-14.63 g/kg). Clinical observation for 14 days revealed the difficulty in breath and diarrhea in mice administered with 10 and 20 g/kg of PPE. These toxic symptoms corresponded to the histopathological lesions of interstitial pneumonia and degeneration of gastrointestinal smooth muscle cells.

Biography

Chatchai Chaotham has completed his Ph.D. study in 2013 from International Graduate Program in Pharmaceutical Technology, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Thailand. He received his Ph.D. grant from The Royal Golden Jubilee Ph.D. Program (grant no. 5.Q.CU/50/C.1). During his doctoral degree study, he was an invited researcher under the supervision of Prof. Samuel Lundin at the Department of Microbiology and Immunology, Institute of Biomedicine, University of Gothenburg, Sweden. Now he continues his postdoctoral fellowship on cancer research at the Department of Pharmacology and Physiology, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Thailand.

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