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A long chain alkylated α-methylene-γ-butyrolactone from *Artabotrys odoratissimus* fruit

Prasanta K. Bordoloi[1, a], Purnajyoti D. Bhuyan[a], Paran Boruah[a], Manobjyoti Bordoloi[a], and Paruchuri G. Rao[a]

[a]North East Institute of Science and Technology (Formerly Regional Research Laboratory, Jorhat) (Council of Scientific & Industrial Research), NH-37, Jorhat 785006, Assam, India

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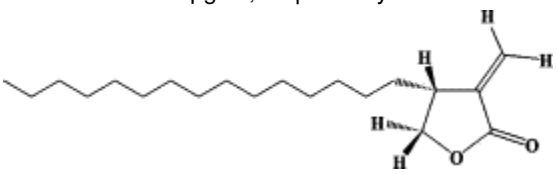
Abstract

As part of our ongoing programme for isolation of bioactive molecules from the flora of the Indo-Burma biodiversity belt, an unusual long chain alkylated α-methylene-γ-butyrolactone was isolated from the juice of ripe fruit of *Artabotrys odoratissimus* R.Br. Its structure was determined as 3-methylene-4-pentadecyldihydrofuran-2-one by spectroscopic methods. It was found to have good antifungal activity against *Alternaria tenuissima* Kunze Ex Pers. isolated from solasodine producing plant *Solanum khasianum* Clarke. Minimum Inhibitory Concentration (MIC) and IC_{50} for 3-methylene-4-pentadecyldihydrofuran-2-one were found as 300 and 51.37 μg/ml, respectively. The standard captan was found to have an MIC and IC_{50} of 200 and 35.52 μg/ml, respectively.

Graphical abstract

An unusual long chain alkylated α-methylene-γ-butyrolactone was isolated from the juice of ripe fruit of *Artabotrys odoratissimus* R.Br. Its

structure was determined as 3-methylene-4-pentadecyldihydrofuran-2-one by spectroscopic methods. It was found to have good antifungal activity against *Alternaria tenuissima* Kunze Ex Pers. isolated from solasodine producing plant *Solanum khasianum* Clarke. Minimum Inhibitory Concentration (MIC) and IC50 for 3-methylene-4-pentadecyldihydrofuran-2-one were found as 300 and 51.37 μg/ml, respectively. The standard captan was found to have an MIC and IC50 of 200 and 35.52 μg/ml, respectively.



Keywords: *Artabotrys odoratissimus*; Annonaceae; Chenichampa phool; 3-Methylene-4-pentadecyldihydrofuran-2-one; Antifungal; *Solanum khasianum*; *Alternaria tenuissima*

Article Outline

Corresponding authors. Tel.: +91 376 2370121; fax: +91 376 2370011.
[1] Permanent Address: Department of Chemistry, Science College, Jorhat 785010, India.

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