

Octadecyl *p*-Coumarates: Probable Anticancer Compounds of *Ipomoea carnea* subsp. *fistulosa*

Natural Product Communications
Volume 15(8): 1–2
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DOI: 10.1177/1934578X20948409
journals.sagepub.com/home/npx



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Keywords

probable anticancer compounds, *Ipomoea carnea* subsp. *fistulosa*, Coumarins, Bioactivity, DNA polymerase inhibition, octadecyl *p*-coumarates

Received: June 17th, 2020; Accepted: July 15th, 2020.

The anticancer property of *Ipomoea carnea* (Convolvulaceae) extractives has been reported by several workers,^{1–5} but the use of crude extractives of the plant in cancer therapy may be limited by the fact that the plant contains several toxic compounds.⁶ Bioassay monitored isolation and characterization of active anticancer compounds from the plant have not yet been reported. However, bioassay monitored isolation of antifungal compounds from *I. carnea* Jacq. subsp. *fistulosa* (Mart. et Choisy) D. F. Austin and their characterization as a mixture of *E* and *Z* isomers of octadecyl *p*-coumarates (Figure 1) were reported for the first time from this institute.⁷

Inhibitory activity of octadecyl *p*-coumarate on calf deoxyribonucleic acid (DNA) polymerase α and rat DNA polymerase β has been reported as a part of a study on selective inhibitors of mammalian DNA polymerases,⁸ which are considered as a group of potentially useful cancer chemotherapeutic agents.⁹ These findings indicate that octadecyl *p*-coumarates possess anticancer activity.

After the discovery of octadecyl *p*-coumarates in *I. carnea* subsp. *fistulosa* at the Indian Institute of Horticultural Research,⁷ these compounds have been made commercially available by the following companies for research purposes.

1. ChemFaces. email: manager@chemfaces.com.
2. BioCrick BioTech. email: info@biocrick.com.
3. BOC Sciences. email: info@bocsci.com.
4. BioBioPha Co. Ltd. email: sales@mail.biobiopha.com.

It is proposed that octadecyl *p*-coumarate may be investigated for possible anticancer activity.

A few suggestions while performing bioassay are given here. Since octadecyl *p*-coumarate is not water soluble, it has to be dissolved in a minimum amount of *n*-propanol and the solution has to be made up with water to obtain a uniform emulsion of the

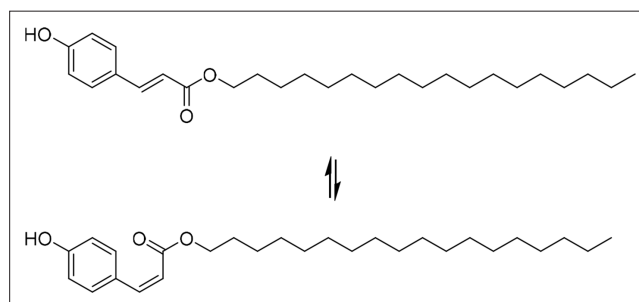


Figure 1. *E* and *Z* isomers of octadecyl *p*-coumarates.

required concentration, taking care to see that the medium is 3% *n*-propanol in water. The control has to be maintained with 3% *n*-propanol in water.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by ICAR-Indian Institute of Horticultural Research.

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