

New diarylheptanoids from *Alpinia pinnanensis*

Giang P.M., Son P.T., Matsunami K., Otsuka H.

Faculty of Chemistry, College of Natural Science, Vietnam National University, 19 Le Thanh Tong, Hanoi, Viet Nam; Graduate School of Biomedical Sciences, Hiroshima University, 1-2-3 Kasumi, Minami-ku, Hiroshima 734-8551, Japan

Abstract: Three new diarylheptanoids, called alpinnanins A-C (1-3), together with two known chalcones, 2',4'-dihydroxy-6'-methoxychalcone and 4',6'-dimethylchalconaringenin, two known flavanones, alpinetin and naringenin 5-O-methyl ether, a known diarylheptanoid, (3S,5S)-trans-3,5-dihydroxy-1,7-diphenyl-1-heptene, stigmasterol and β -sitosterol as a mixture, and β -sitosterol 3-O- β -D-glucopyranoside were isolated from the rhizomes of *Alpinia pinnanensis* T. L. WU et SENJEN (Zingiberaceae). Their structures were elucidated by spectroscopic analyses. ?? 2005 Pharmaceutical Society of Japan.

Author Keywords: *Alpinia pinnanensis*; Alpinnanin; Diarylheptanoid; Zingiberaceae

Index Keywords: 2',4' dihydroxy 6' methoxychalcone; 3,5 dihydroxy 1,7 diphenyl 1 heptene; 4',6' dimethylchalconaringenin; alpinetin; alpinnanin a; alpinnanin b; alpinnanin c; beta sitosterol 3 o beta dextro glucopyranoside; chalcone derivative; flavanone derivative; heptane derivative; naringenin 5 o methyl ether; pyranoside; sitosterol; stigmasterol; unclassified drug; *Alpinia*; *Alpinia pinnanensis*; article; chemical structure; controlled study; nonhuman; phytochemistry; rhizome; structure analysis; *Alpinia*; Carbon Isotopes; Diarylheptanoids; Magnetic Resonance Spectroscopy; Molecular Structure; Protons; Reference Standards; Stereoisomerism

Year: 2005

Source title: Chemical and Pharmaceutical Bulletin

Volume: 53

Issue: 10

Page : 1335-1337

Cited by: 4

Link: [Scopus Link](#)

Chemicals/CAS: sitosterol, 19044-06-5, 83-46-5; stigmasterol, 83-48-7; alpinnanin A; alpinnanin B; alpinnanin C; Carbon Isotopes; Diarylheptanoids; Protons

Correspondence Address: Otsuka, H.; Graduate School of Biomedical Sciences, Hiroshima University, 1-2-3 Kasumi, Minami-ku, Hiroshima 734-8551, Japan; email: hotsuka@hiroshima-u.ac.jp

ISSN: 92363

CODEN: CPBTA

DOI: 10.1248/cpb.53.1335

PubMed ID: 16204997

Language of Original Document: English

Abbreviated Source Title: Chemical and Pharmaceutical Bulletin

Document Type: Article

Source: Scopus

Authors with affiliations:

1. Giang, P.M., Faculty of Chemistry, College of Natural Science, Vietnam National University, 19 Le Thanh Tong, Hanoi, Viet Nam, Graduate School of Biomedical Sciences, Hiroshima University, 1-2-3 Kasumi, Minami-ku, Hiroshima 734-8551, Japan
2. Son, P.T., Faculty of Chemistry, College of Natural Science, Vietnam National University, 19 Le Thanh Tong, Hanoi, Viet Nam
3. Matsunami, K., Graduate School of Biomedical Sciences, Hiroshima University, 1-2-3 Kasumi, Minami-ku, Hiroshima 734-8551, Japan
4. Otsuka, H., Graduate School of Biomedical Sciences, Hiroshima University, 1-2-3 Kasumi, Minami-ku, Hiroshima 734-8551, Japan

References:

1. Phan, M.G., Phan, T.S., Lee, J.J., Otsuka, H., (2004) Chem. Pharm. Bull., 52, pp. 879-882
2. Phan, M.G., Phan, T.S., Otsuka, H., (2005) Chem. Pharm. Bull., 53, pp. 232-234
3. Nguyen, Q.B., (2001) Selection of Research Works on Ecology and Biological Resources (1996-2000), pp. 36-38. , Agriculture, Hanoi
4. Wollenweber, E., Jay, M., Favre-Bonvin, J., (1974) Phytochemistry, 13, pp. 2618-2619
5. Harborne, J.B., Mabry, T.J., (1982) The Flavonoids: Advances in Research, , Chapman and Hall, London
6. Stevens, J.F., Taylor, A.W., Nickerson, G.B., Ivancic, M., Henning, J., Haunold, A., Deinzer, M.L., (2000) Phytochemistry, 53, pp. 759-775
7. Itokawa, H., Morita, M., Mihashi, S., (1981) Phytochemistry, 20, pp. 2503-2506
8. Kuroyanagi, M., Noro, T., Fukushima, S., Aiyama, R., Ikuta, A., Itokawa, H., Morita, M., (1983) Chem. Pharm. Bull., 31, pp. 1544-1550
9. Brooks, C.J.W., (1970) "Rodd's Chemistry of Carbon Compounds," 2nd Ed., 2 D. , Elsevier, Amsterdam
10. Prasain, J.K., Tezuka, Y., Li, J.X., Tanaka, K., Basnet, P., Dong, H., Namba, T., Kadota, S., (1997) Tetrahedron, 53, pp. 7833-7842
11. Prasain, J.K., Li, J.X., Tezuka, Y., Tanaka, K., Basnet, P., Dong, H., Namba, T., Kadota, S., (1998) J. Nat. Prod., 61, pp. 212-216
12. Tezuka, Y., Gewali, M.B., Ali, M.S., Banskota, A.H., Kadota, S., (2001) J. Nat. Prod., 64, pp. 208-213