A new cycloartane derivative from *Garcinia mangostana* L.

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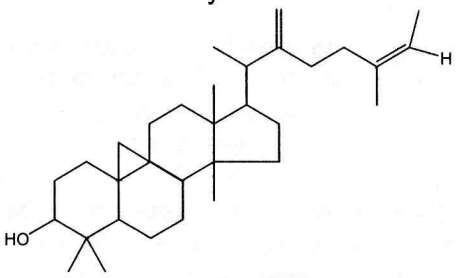
Garcinia mangostana L. (Clusiaceae) is a delicious fruit tree found in South East Asia, and medicinal uses such as for the treatment of diarrhea, dysentery, skin infections and as an anti-inflammatory agent are reported. Further, a number of biologically active xanthones and other natural products have been reported from various parts of *G. mangostana*.

Our chemical investigation on root bark and fruit hull of *G. mangostana* L. yielded β-mangostin, α-mangostin, γ- mangostin, Gartanin, Garcinone E, 3^1-hydroxy-4^1-geranyl-5^1-methoxybiphenyl and an unidentified white crystalline compound with mp. 98 -100°C. In the proton NMR spectrum of this unidentified compound, two ^{1}H doublets appeared at δ_H 0.35 and 0.57 with coupling constants of 4 Hz clearly indicated the presence of two cyclopropyl protons of a cycloartenol derivative. ^{13}C NMR spectral data showed the presence of 32 carbon atoms in the compound. Further spectral analysis indicated the presence of a secondary hydroxyl group and two double bonds. HMQC and HMBC correlation studies clearly indicated the cycloartinol skeleton, positions of the double bonds and the attachment of the hydrocarbon chain. Considering the above information together with literature data comparison, the structure of the unidentified compound was confirmed as cycloart-22, 25 diene-3β- ol, which is a new cycloartane derivative.



Cycloart-22, 25 diene-3β- ol

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