ANTIBACTERIAL ACTIVITY OF GERMACRANE TYPE SESQUITERPENES FROM Curcuma heyneana RHIZOMES

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Abstract	The isolation of terpenoids from C. heyneana rhizomes and their antibacterial activity have been conducted. The terpenoids were isolated by using vacuum liquid chromatography and radial chromatography. The structures of the compounds were determined based on spectroscopic data (H-1-NMR, 13C-NMR (1D and 2D)). The antibacterial activity was carried out by using microdilution method and evaluated against eight bacteria. Three germacrane type sesquiterpenes have been isolated from C. heyneana rhizhomes and were identified as germacrone, dehydrocurdione, and 1(10), 4(5)-diepoxygermacrone. Germacrone showed highest antibacterial activity against P. aeruginosa with MIC values of 15.6 mu g/mL and MBC values 31.2 mu g/mL. Dehydrocurdione showed highest antibacterial activity against B. subtilis with MIC values of 31.2 mu g/mL and MBC values of 31.2 mu g/mL. However, 1(10), 4(5)-diepoxygermacrone showed a weak antibacterial activity.
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