

Publication

Antiparasitic chaiyaphumines from Entomopathogenic xenorhabdus sp. PB61.4

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A new class of four depsipentapeptides called chaiyaphumines A-D (1-4) was isolated from *Xenorhabdus* sp. PB61.4. Their structures were elucidated by detailed 1D and 2D NMR experiments and by a Marfey's analysis following flash hydrolysis of the peptide. Verification of the structure was achieved by three-dimensional modeling using NOE-derived distance constraints, molecular dynamics, and energy minimization. Chaiyaphumine A (1) showed good activity against *Plasmodium falciparum* (IC₅₀ of 0.61 μ M), the causative agent of malaria, and was active against other protozoal tropical disease causing agents.

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