

Dandamycin and chandrananimycin E, benzoxazines from *Streptomyces griseus*.

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Abstract

Two new benzoxazines were isolated from *Streptomyces griseus* (HKI 0545) and assigned as chandrananimycin E (1) and dandamycin (2). Although a number of phenoxazinone-type compounds have been reported from nature, phenoxazines are rarer, and carbon substitution at N-10 such as in 1 is unprecedented. The cyclopentene-containing ring structure of dandamycin (2) is also unique. Chandrananimycin E (1) was found to possess moderate antiproliferative activity against HUVEC cells (GI_{50} 35.3 μ M) and weak cytotoxic activity towards HeLa cells (CC_{50} 56.9 μ M). Dandamycin showed neither antiproliferative activity nor cytotoxicity towards these cell lines. Structure activity comparisons with phenoxazinones isolated from *S. griseus* HKI 0545 suggested that the alteration of the core ring systems in 1 and 2 diminishes their activity. Natural products 1 and 2 are interesting additions to the rich secondary metabolome of *S. griseus* and constitute an important addition to the body of knowledge on phenoxazinone-derived metabolites.

Beteiligte Forschungseinheiten

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