Linear Peptides Are the Major Products of a Biosynthetic Pathway That Encodes for Cyclic Depsipeptides.

Wyche TP, Ruzzini AC, Beemelmanns C, Kim KH, Klassen JL, Cao S, Poulsen M, Bugni TS, Currie CR, Clardy J (2017) Linear Peptides Are the Major Products of a Biosynthetic Pathway That Encodes for Cyclic Depsipeptides. *Org Lett* 19(7), 1772-1775.

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Abstract

Three new dentigerumycin analogues are produced by Streptomyces sp. M41, a bacterium isolated from a South African termite, Macrotermes natalensis. The structures of the complex nonribosomal peptide synthetase-polyketide synthase (NRPS/PKS) hybrid compounds were determined by 1D- and 2D-NMR spectroscopy, high-resolution mass spectrometry, and circular dichroism (CD) spectroscopy. Both cyclic and linear peptides are reported, and the genetic organization of the NRPS modules within the biosynthetic gene cluster accounts for the observed structural diversity.

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doi: 10.1021/acs.orglett.7b00545

PMID: 28326787