

Solid-phase-based total synthesis and stereochemical assignment of the cryptic natural product aurantizolicin.

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Abstract

The total synthesis and stereochemical assignment of the polyazole cyclopeptide aurantizolicin was achieved by connecting the solution synthesis of building blocks with solid-phase peptide synthesis. Macrothiolactonization and an aza-Wittig reaction provided the natural product macrocycle in high yield as well as key stereoisomers. NMR comparison as well as isolation of the natural product from the producer organism *Streptomyces aurantiacus* confirmed the presence and sequence of one L-Ile and one d-allo-Ile residue in aurantizolicin.

Involved units

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Pierre Stallforth

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