# Precursor-directed diversification of cyclic tetrapeptidic pseudoxylallemycins.

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**Abstract**

Cyclic peptides containing non-proteinogenic amino acids often exhibit a broad bioactivity spectrum and many have entered clinical trials with good prospects for drug development. We recently reported the discovery of six cyclic tetrapeptides, the pseudoxylallemycins A–F (1–6), from a termite-associated Pseudoxylaria sp. X802. These compounds contain a rare O-homoallenyl-L-tyrosine moiety and showed promising antimicrobial activity against the Gram-negative pathogenic bacterium Pseudomonas aeruginosa. To perform more detailed structure-activity studies, we pursued a precursor-directed diversification strategy. Here, we report the purification, identification and testing of 21 new pseudoxylallemycin derivatives.

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## Topics

Secondary metabolites from insect-associated microbes

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