

Polyketide-chain branching by an enzymatic Michael addition.

Kusebauch B, Busch B, Scherlach K, Roth M, Hertweck C (2009) Polyketide-chain branching by an enzymatic Michael addition. *Angew Chem Int Ed Engl* 48(27), 5001-5004.

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Abstract

A new "branch" for polyketide synthases was discovered in the biosynthesis of the antimitotic rhizoxin complex in the endofungal bacterium *Burkholderia rhizoxinica*. Genetic engineering and the structural elucidation of pathway intermediates revealed that a complex polyketide chain is branched at the beta position by an unprecedented conjugate addition of an acetyl building block to an acryloyl precursor (see scheme).

Involved units

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