Functionally distinct modules operate two consecutive alpha,beta-->beta,gamma double-bond shifts in the rhizoxin polyketide assembly line.

Kusebauch B, Busch B, Scherlach K, Roth M, Hertweck C (2010) Functionally distinct modules operate two consecutive alpha,beta-->beta,gamma double-bond shifts in the rhizoxin polyketide assembly line. *Angew Chem Int Ed Engl* 49(8), 1460-1464.

Details

PubMed

Abstract

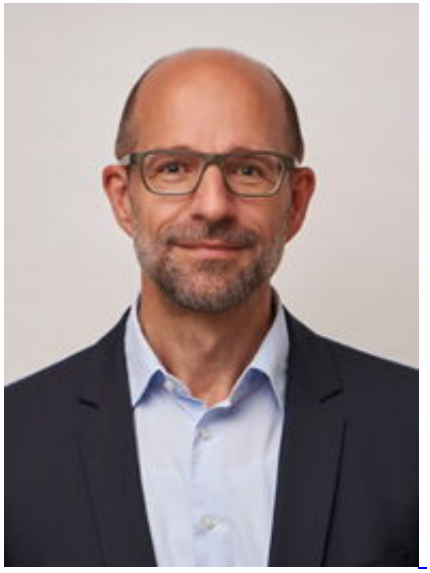
Shift work: Biochemical analysis of the rhizoxin pathway revealed that the diene moiety is not shifted all at once, but through distinct enzymatic operations. The first shift occurs by a formal β,γ-dehydration in module 7, while the second double bond is first generated by module 8 and then shifted by an unprecedented “shift module” with a novel type of DH* domain (see scheme). ACP=acyl carrier protein, DH*=dehydratase-like shift domain.

Beteiligte Forschungseinheiten

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