

Biosynthesis of the antimetabolite 6-thioguanine in *Erwinia amylovora* plays a key role in fire blight pathogenesis.

Coyne S, Chizzali C, Khalil MN, Litomska A, Richter K, Beerhues L, Hertweck C. (2013) Biosynthesis of the antimetabolite 6-thioguanine in *Erwinia amylovora* plays a key role in fire blight pathogenesis. *Angew Chem Int Ed Engl.* 52(40), 10564-10568.

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Abstract

Sulfur for fire: The molecular basis for the biosynthesis of the antimetabolite 6-thioguanine (6TG) was unveiled in *Erwinia amylovora*, the causative agent of fire blight. Bioinformatics, heterologous pathway reconstitution in *E. coli*, and mutational analyses indicate that the protein YcfA mediates guanine thionation in analogy to 2-thiouridylase. Assays in planta and in cell cultures reveal for the first time a crucial role of 6TG in fire blight pathogenesis.

Beteiligte Forschungseinheiten

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doi: 10.1002/anie.201305595