

The NDP-sugar co-substrate concentration and the enzyme expression level influence the substrate specificity of glycosyltransferases: cloning and characterization of deoxysugar biosynthetic genes of the urdamycin biosynthetic gene cluster.

Hoffmeister D, Ichinose K, Domann S, Faust B, Trefzer A, Dräger G, Kirschning A, Fischer C, Künzel E, Bearden D, Rohr J, Bechthold A (2000) The NDP-sugar co-substrate concentration and the enzyme expression level influence the substrate specificity of glycosyltransferases: cloning and characterization of deoxysugar biosynthetic genes of the urdamycin biosynthetic gene cluster. *Chem Biol* 7, 821-831.

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Abstract

Streptomyces fradiae is the principal producer of urdamycin A. The antibiotic consists of a polyketide-derived aglycone, which is glycosylated with four sugar components, 2x D-olivose (first and last sugar of a C-glycosidically bound trisaccharide chain at the 9-position), and 2x L-rhodinose (in the middle of the trisaccharide chain and at the 12b-position). Limited information is available about both the biosynthesis of D-olivose and L-rhodinose and the influence of the concentration of both sugars on urdamycin biosynthesis.

Beteiligte Forschungseinheiten

[Pharmazeutische Mikrobiologie](#) [Dirk Hoffmeister](#) [Mehr erfahren](#)

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