

Genomics-guided discovery of endophenazines from *Kitasatospora* sp. HKI 714.

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Abstract

In this study we report on the genomics-guided exploration of the metabolic potential of the newly discovered strain *Kitasatospora* sp. HKI 714. The bioinformatics analysis of the whole genome sequence revealed the presence of a biosynthetic gene cluster presumably responsible for the biosynthesis of formerly unknown endophenazine derivatives. A 200 L cultivation combined with bioactivity-guided isolation techniques revealed four new natural products belonging to the endophenazines and the 5,10-dihydrophenazines. Detailed descriptions of their biological effects, mainly focused on antimicrobial properties against several mycobacteria, are given.

Beteiligte Forschungseinheiten

[Biomolekulare Chemie](#) [Christian Hertweck](#) [Mehr erfahren](#)

[Biotechnikum](#) [Miriam Agler-Rosenbaum](#) [Mehr erfahren](#)

Leibniz-HKI-Autor*innen



Daniel Heine

[Details](#)



Christian Hertweck

[Details](#)



Karin Martin

[Details](#)

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