Abstract

The strain *Streptomyces* sp. Tü2401 is capable of producing antimicrobial compounds which are active against diverse types of bacteria. Preliminary screening showed potent activity against several multiresistant *Escherichia coli* strains as well as the Gram-positive strains *Bacillus subtilis* and *Staphylococcus aureus*. Additionally, a mode-of-action *Bacillus* reporter strain indicated the presence of substances, which inhibit DNA synthesis. The broad activity spectrum and the unusual mode of action make this strain a valuable target of bioactivity-guided isolation of its natural products.

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Appendix

0.1 HPLC Methods

Vielleicht wenn hier text steht

Table 0.1: **Standard Screening Method**

Parameter	**Value**
Column	Nucleosil-100 C18 5 µm 150×3 mm
Solvents	A: Water + 0.1 % Formic acid
	B: Acetonitrile + 0.1 % Formic acid
Method	Gradient 5 - 100 % B for 15 min
	Plateau 100 % B for 3 min
Flow	1.25 mL min^{-1}
Temperature	25 °C
Injection Volume	50 µL

Table 0.2: Standard aminocolumn method

Parameter	**Value**
Column	Luna NH2 5 µm 250×4.6 mm
Solvents	A: Water + 0.1 % Formic acid
	B: Acetonitrile + 0.1 % Formic acid
Method	Isocratic 80 % B for 20 min
	+ 100 % A for 10 min
Flow	2 mL min^{-1}
Temperature	25 °C
Injection Volume	50 µL

Table 0.3: **The standard HILIC method**

Component	**Parameter**
Column	ZIC-HILIC 3.5 µm 150×4.6 mm
Solvents	A: 10 mM Ammonium acetate
	B: Acetonitrile
Method	Isocratic 80 % B for 45 min.
Flow	0.8 mL min^{-1}
Temperature	25 °C
Injection Volume	50 µL

Table 0.4: **HILIC method adapted for MS coupling**

Component	**Parameter**
Column	ZIC-HILIC 3.5 µm 150×4.6 mm
Solvents	A: 10 mM Ammonium acetate
	B: Acetonitrile
Method	Isocratic 80 % B for 60 min.
Flow	0.5 mL min^{-1}
Temperature	25 °C
Injection Volume	50 µL

Table 0.5: Screening method for HPLC-MS

Parameter	**Value**
Column	Nucleosil-100 5 µm 150×3 mm
Solvents	A: Water + 0.1 % Formic acid
	B: Acetonitrile + 0.06 % Formic acid
Method	Gradient 0 - 100 % B for 15 min
	Plateau 100 % B for 2 min
Flow	0.4 mL min^{-1}
Temperature	40 °C
Injection Volume	2.5 µL
Capillary Voltage	3500 V
Injector Temperature	350 °C
Target mass	400 m/z

Table 0.6: **Screening Method Polar-C18**

Parameter	**Value**
Column	Kinetex Polar-C18 2.6 µm 150×4.6 mm
Solvents	A: Water + 0.1 % Formic acid
	B: Acetonitrile + 0.1 % Formic acid
Method	Gradient 5 - 100 % B for 20 min
	Plateau 100 % B for 6 min
Flow	1.2 mL min^{-1}
Temperature	50 °C
Injection Volume	50 µL

Table 0.7: **Reverse Screening Method Polar-C18**

Parameter	**Value**
Column	Kinetex Polar-C18 2.6 µm 150×4.6 mm
Solvents	A: Water + 0.1 % Formic acid
	B: Acetonitrile + 0.1 % Formic acid
Method	Gradient 100 - 5 % B for 20 min
	Plateau 100 % B for 6 min
Flow	1.2 mL min^{-1}
Temperature	50 °C
Injection Volume	50 µL