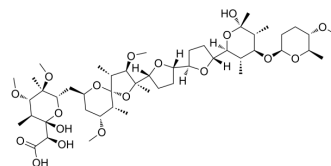


K-41

Cat. No.:	HY-136943
CAS No.:	53026-37-2
Molecular Formula:	C ₄₈ H ₈₂ O ₁₈
Molecular Weight:	947.15
Target:	Antibiotic; Parasite; Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	K-41 is an orally active antibiotic. K-41 can be obtained from <i>Streptomyces hygroscopicus</i> . K-41 has antibacterial and antiplasmodial activity ^{[1][2]} .
In Vitro	K-41 inhibits K1 and FCR3 strains of <i>Plasmodium falciparum</i> , with IC ₅₀ s of 8.5 and 31 nM ^[1] . K-41 inhibits <i>B. subtilis</i> , <i>B. anthracis</i> , <i>S. aureus</i> , <i>S. pyogenes</i> , <i>S. pneumoniae</i> , <i>C. diphtheria</i> , and <i>M. tuberculosis</i> , with MICs of 3.13, 1.56, 1.56, 0.78, 0.39, 0.78, and 3.13 µg/mL, respectively ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	K-41 (p.o.) inhibits <i>P. berghei</i> and <i>P. yoelii</i> infection in mice, with ED ₅₀ s of 1.9 and 7.0 mg/kg, respectively ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Otoguro K, et al. In vitro and in vivo antimalarial activities of the monoglycoside polyether antibiotic, K-41 against drug resistant strains of Plasmodia. *J Antibiot (Tokyo)*. 2002 Sep;55(9):832-4.

[2]. Tsuji N, et al. Two new antibiotics, A-218 and K-41. Isolation and characterization. *J Antibiot (Tokyo)*. 1976 Jan;29(1):10-4.

Caution: Product has not been fully validated for medical applications. For research use only.

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