

PRODUCT INFORMATION



K-41

Item No. 29573

CAS Registry No.: 53026-37-2
Formal Name: (2S)-9,13:17,20:21,24-trianhydro-4,8,10,12,14,18,19,22,23,26,28,30-dodecadeoxy-4,12,14,26,28-pentamethyl-6,16-di-C-methyl-5,6,11,15-tetra-O-methyl-27-O-[(2R,5S,6R)-tetrahydro-5-methoxy-6-methyl-2H-pyran-2-yl]-L-xylo-L-manno- α -D-gluco-L-ribo- α -L-gluco-D-glycero-3,13,29-triacontotriulo-13,16-furanose-3,7:29,25-dipyranosonic acid

MF: C₄₈H₈₂O₁₈

FW: 947.2

Purity: \geq 70%

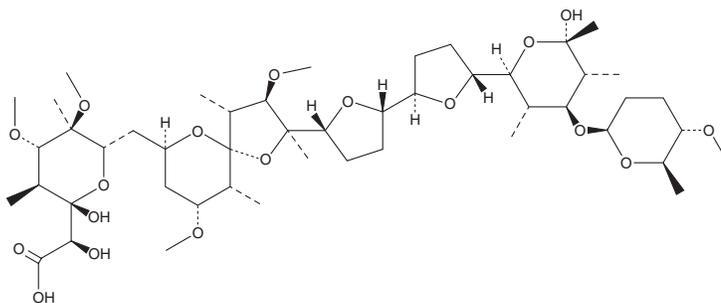
Supplied as: A solid

Storage: -20°C

Stability: \geq 4 years

Item Origin: Bacterium/*Streptomyces* sp.

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.



Laboratory Procedures

K-41 is supplied as a solid. A stock solution may be made by dissolving the K-41 in the solvent of choice, which should be purged with an inert gas. K-41 is soluble in ethanol, methanol, DMSO, and dichloromethane.

Description

K-41 is a monoglycoside polyether fungal metabolite originally isolated from *S. hygroscopicus* that has antibiotic and antiparasitic activities.^{1,2} It is active against *B. subtilis*, *B. anthracis*, *S. aureus*, *S. pyogenes*, *S. pneumoniae*, *C. diphtheriae*, and *M. tuberculosis* (MICs = 3.13, 1.56, 1.56, 0.78, 0.39, 0.78, and 3.13 μ g/ml, respectively).¹ K-41 is active against the K1 drug-resistant and FCR3 drug-susceptible *P. falciparum* strains (IC₅₀s = 8.5 and 31 nM, respectively).² *In vivo*, K-41 has antiparasitic activity in mouse models of *P. berghei* and *P. yoelii* infection (ED₅₀s = 1.9 and 7.0 mg/kg, respectively).

References

1. Tsuji, N., Nagashima, K., Kobayashi, M., et al. Two new antibiotics, A-218 and K-41. Isolation and characterization. *J. Antibiot. (Tokyo)* **29**(1), 10-14 (1976).
2. Wang, Q., Fan, S., Eastman, A., et al. UCN-01: A potent abrogator of G2 checkpoint function in cancer cells with disrupted p53. *J. Natl. Cancer Inst.* **88**(14), 956-965 (1996).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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