

Product Data Sheet

Product Name: K-41
Cat. No.: GC47523

Chemical Properties

Cas. No. 53026-37-2

SMILES CO[C@@H]1C[C@](C[C@H]2[C@@](OC)(C)[C@@H](OC)[C@H](C)[C@]([C@H](C(O)=O)O)(O)O2)([H])O[C@]3(O[C@@]([C@@]4([H])CC[C@]([C@]5([H])O[C@]([C@]6([H])[C@@H](C)[C@H](O[C@@H]7O[C@H](C)[C@@H](OC)CC7)[C@@H](C)[C@](O)(C)O6)([H])CC5)([H])O4)(C)[C@H](OC)[C@H]3C)[C@@H]1C

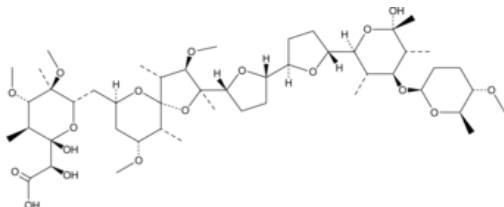
Formula C₄₈H₈₂O₁₈ M.Wt 947.2

Solubility Dichloromethane: soluble, DMSO: Storage Store at -20°C
soluble, Ethanol: soluble, Methanol: soluble

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

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 µg/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).

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

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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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. Moreno, M., and Giralt, E. Three valuable peptides from bee and wasp venoms for therapeutic and biotechnological use: Melittin, apamin and mastoparan. *Toxins* 7:1126-1150 (2015)

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