Polyketomycin

Cat. No.: HY-106338

CAS No.: 200625-47-4

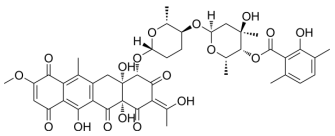
Molecular Formula: $C_{44}H_{48}O_{18}$

Molecular Weight: 864.84

Target: Bacterial; ADC Cytotoxin; Parasite

Pathway: Anti-infection; Antibody-drug Conjugate/ADC Related

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Polyketomycin is a tetracyclic quinone glycoside antibiotic isolated from Streptomyces sp. or Streptomyces diastatochromogenes. Polyketomycin inhibits growth of Gram-positive bacteria, and its MIC values is less than 0.2 μg/mL. Polyketomycin has antibacterial, anticancer, antimalarial activities[1][2][3].	
IC_{50} & Target	Plasmodium	Traditional Cytotoxic Agents
In Vitro	Polyketomycin exhibits growth inhibition against L1210 leukemia, EL-4 leukemia, P388 leukemia, Ehrlich carcinoma, IMC carcinoma, colon 26 adnocarcinoma, Meth A fibrosarcoma, FS-3 fibrosarcoma and B16-BL10 melanoma with IC_{50} values of 3.3 μg/mL, 2.1 μg/mL, 5.2 μg/mL, 1 μg/mL, 0.9 μg/mL, 1.8 μg/mL, 2.4 μg/mL, 1.5 μg/mL and 1.6 μg/mL, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	The acute toxicity (LD_{50}, ip) of Polyketomycin in mice is estimated to be 6.25-12.5mg/kg[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

REFERENCES

[1]. Momose I, et al. Polyketomycin, a new antibiotic from Streptomyces sp. MK277-AF1. I. Taxonomy, production, isolation, physico-chemical properties and biological activities. J Antibiot (Tokyo). 1998 Jan;51(1):21-5.

[2]. Daum M, et al. Organisation of the biosynthetic gene cluster and tailoring enzymes in the biosynthesis of the tetracyclic quinone glycoside antibiotic polyketomycin. Chembiochem. 2009 Apr 17;10(6):1073-83.

[3]. Otoguro K, In vitro antimalarial activities of the microbial metabolites. J Antibiot (Tokyo). 2003 Mar;56(3):322-4.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA