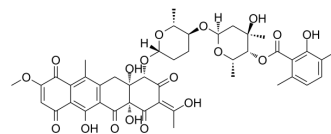


Polyketomycin

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 <i>Streptomyces</i> sp. or <i>Streptomyces diastatochromogenes</i> . 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]} .
IC₅₀ & Target	Traditional Cytotoxic Agents
In Vitro	Polyketomycin exhibits growth inhibition against L1210 leukemia, EL-4 leukemia, P388 leukemia, Ehrlich carcinoma, IMC carcinoma, colon 26 adenocarcinoma, 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]. Otaguro 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.

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