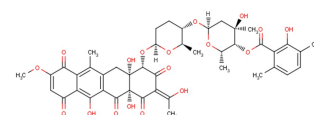


## Polyketomycin

## Chemical Properties

CAS No.:	200625-47-4
Formula:	C44H48O18
Molecular Weight:	864.84
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



## Biological Description

Description	Polyketomycin is a tetracyclic quinone glycoside antibiotic isolated from <i>Streptomyces</i> sp. or <i>Streptomyces diastatochromogenes</i> , has antibacterial, anticancer, antimalarial activities.
Targets(IC <sub>50</sub> )	Others: None
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 (IC <sub>50</sub> 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].
In vivo	In mice, Polyketomycin acute toxicity is estimated to be 6.25-12.5mg/kg[1].

## Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.156 mL	5.781 mL	11.563 mL
5 mM	0.231 mL	1.156 mL	2.313 mL
10 mM	0.116 mL	0.578 mL	1.156 mL
50 mM	0.023 mL	0.116 mL	0.231 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

## Reference

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.

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