

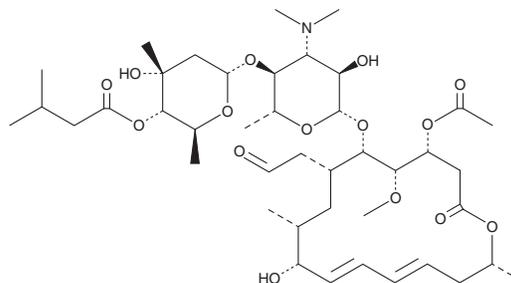
PRODUCT INFORMATION



Josamycin

Item No. 29606

CAS Registry No.:	16846-24-5
Formal Name:	3-acetate 4 ^B -(3-methylbutanoate) leucomycin V
Synonyms:	Kitasamycin A ₃ , Leucomycin A ₃ , Turimycin A ₅
MF:	C ₄₂ H ₆₉ NO ₁₅
FW:	828.0
Purity:	≥98%
UV/Vis.:	λ _{max} : 231 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Bacterium/ <i>Streptomyces narbonensis</i> var. <i>josamyceticus</i> var. <i>nova</i>



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

Laboratory Procedures

Josamycin is supplied as a solid. A stock solution may be made by dissolving the josamycin in the solvent of choice, which should be purged with an inert gas. Josamycin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of josamycin in ethanol and DMF is approximately 25 mg/ml and approximately 15 mg/ml in DMSO.

Josamycin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, josamycin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Josamycin has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Josamycin is a macrolide antibiotic originally isolated from *S. narbonensis*.¹ It is active against clinical isolates of the Gram-positive aerobic bacteria *S. aureus*, *S. epidermidis*, *S. pneumoniae*, *S. pyogenes*, and *S. agalactiae* (MIC₅₀s = ≤0.39 µg/ml for all), as well as the Gram-negative anaerobic bacteria *Peptococcus*, *Peptostreptococcus*, and *Clostridium* when used at concentrations of 6.25 µg/ml.² It increases survival in mouse models of systemic *S. aureus*, *S. pyogenes*, and *S. pneumoniae* infection with ED₅₀ values of 206.8, 205, and 86.7 mg/kg, respectively.³

References

1. Osono, T., Oka, Y., Watanabe, S., *et al.* A new antibiotic, josamycin. I. Isolation and physico-chemical characteristics. *J. Antibiot. (Tokyo)* **20(3)**, 174-180 (1967).
2. Reese, R.E., Betts, R.F., Goedde, L.W., *et al.* In vitro susceptibility of common clinical anaerobic and aerobic isolates against josamycin. *Antimicrob. Agents Chemother.* **10(2)**, 253-257 (1976).
3. Ono, T., Numata, K., Nagate, T., *et al.* In vitro and in vivo antibacterial activities of clarithromycin. *Chemotherapy* **42(3)**, 159-169 (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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