

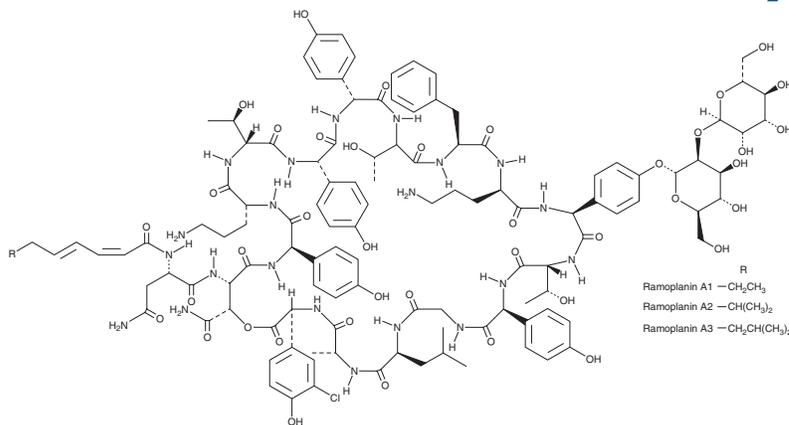
PRODUCT INFORMATION



Ramoplanin Complex

Item No. 28189

CAS Registry No.: 76168-82-6
Formal Name: ramoplanin A1, A2, and A3 (mixture)
Synonyms: A-16686, MDL 62198
MF: C₁₁₉H₁₅₄ClN₂₁O₄₀ (for A2)
FW: 2,554.1
Purity: ≥80% (Ramoplanin A2)
UV/Vis.: λ_{max}: 234, 267 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Bacterium/Actinoplanes sp.



R
Ramoplanin A1 — CH₂CH₃
Ramoplanin A2 — CH(CH₃)₂
Ramoplanin A3 — CH₂CH(CH₃)₂

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

Laboratory Procedures

Ramoplanin complex is supplied as a solid. A stock solution may be made by dissolving the ramoplanin complex in the solvent of choice, which should be purged with an inert gas. Ramoplanin complex is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ramoplanin complex in these solvents is approximately 10 mg/ml.

Ramoplanin complex is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ramoplanin complex should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Ramoplanin complex has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Ramoplanin complex is a mixture of ramoplanin A1, -A2, and -A3 originally isolated from *Actinoplanes* that has antibacterial activity.¹⁻³ Ramoplanin complex is active against clinical isolates of the Gram-positive bacteria *S. aureus*, *S. pyogenes*, *S. pneumoniae*, and *S. faecalis* (MICs = 0.016-2 µg/ml) but not Gram-negative bacteria or *C. albicans* (MICs = ≥128 µg/ml).¹ It inhibits cell wall synthesis in *B. subtilis* when used at a concentration of 0.5 µg/ml.² Ramoplanin complex is effective against systemic *S. pyogenes*, *S. pneumoniae*, and *S. aureus* infections in mice with ED₅₀ values of 0.081, 0.14, and approximately 25 mg/kg per day, respectively.

References

1. Pallanza, R., Berti, M., Scotti, R., *et al.* A-16686, a new antibiotic from actinoplanes. II. Biological properties. *J. Antibiot. (Tokyo)* **37(4)**, 318-324 (1984).
2. Cavalleri, B., Pagani, H., Volpe, G., *et al.* A-16686, a new antibiotic from actinoplanes. I. Fermentation, isolation and preliminary physico-chemical characteristics. *J. Antibiot. (Tokyo)* **37(4)**, 309-317 (1984).
3. Shin, D., Rew, Y., and Boger, D.L. Total synthesis and structure of the ramoplanin A1 and A3 aglycons: Two minor components of the ramoplanin complex. *Proc. Natl. Acad. Sci. USA* **101(33)**, 11977-11979 (2004).

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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