

Product Name:	Ramoplanin
Product Number:	R024
CAS Number:	76168-82-6
Molecular Formula:	C ₁₁₉ H ₁₅₄ ClN ₂₁ O ₄₀ (for A2)
Molecular Weight:	2554.1 (for A2)
Appearance:	White solid
Solubility:	soluble in ethanol, methanol, DMF and DMSO.
Source:	Actinoplanes (strain: ATCC 33076)
Storage Conditions:	-20°C
Description:	<p>Ramoplanin is a cyclic lipoglycopeptide antimicrobial. It is a complex of structurally related molecules with Ramoplanin A2 as the primary component. Ramoplanin was isolated in the early 1980s as the major metabolite of a strain of Actinoplanes. It is a therapeutic peptide, effective against Gram-positive bacteria including MRSA and MRSE.</p> <p>Ramoplanin is soluble in ethanol, methanol, DMF and DMSO.</p>
Mechanism of Action:	Ramoplanin binds to the peptidoglycan intermediate Lipid II, blocking its polymerization to form the carbohydrate chains of peptidoglycan, resulting in inhibition of bacterial cell wall biosynthesis.
Spectrum:	Effective against Gram-positive bacteria.
Microbiology Applications	Ramoplanin is effective against antibiotic-resistant <i>Clostridium difficile</i> infection of the gastrointestinal tract. It can be used to study antibiotic-resistant enterococci. Ramoplanin is commonly used in clinical in vitro microbiological antimicrobial susceptibility tests (panels, discs, and MIC strips) against Gram positive isolates. Medical microbiologists use AST results to recommend antibiotic treatment options. For representative MIC values form the Antimicrobial Index, click here .

References:

Cavalleri B et al (1984) A-16686, a new antibiotic from Actinoplanes. I. Fermentation, isolation and preliminary physico-chemical characteristics. J. Antibiot. 37:309

Chen L (2004) Dissecting ramoplanin: mechanistic analysis of synthetic ramoplanin analogues as a guide to the design of improved antibiotics. J Am Chem Soc.126(24):7462-7463 PMID 15198592

Farver DK et al (2005) Ramoplanin: a lipoglycopeptide antibiotic. . Ann. Pharmacother. 39:863

Johnson C.C. et al. (1992) Bactericidal activity of ramoplanin against antibiotic-resistant enterococci. Antimicrob. Agents Chemother. 36:2342

Van Bambeke F (2006) Glycopeptides and glycopeptide antibiotics in clinical development: a comparative review of their antibacterial spectrum, pharmacokinetics and clinical efficacy. Curr.Opin. Investig. Drugs. 7(8):740-749 PMID 16955686

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