

PRODUCT INFORMATION



Virginiamycin Complex

Item No. 14503

CAS Registry No.: 11006-76-1

Formal Name: N-((6R,9S,10R,13S,15aS,22S,24aS)-22-benzyl-6-ethyl-10,23-dimethyl-5,8,12,15,17,21,24-heptaaxo-13-phenyldocosahydro-12H-pyrido[2,1-f]pyrrolo[2,1-l][1]oxa[4,7,10,13,16]pentaazacyclononadecin-9-yl)-3-hydroxypicolinamide compound with (12Z,6R,7R,8E,13Z,15E,17S)-17-hydroxy-6-isopropyl-7,15-dimethyl-32,33-dihydro-31H-5-oxa-11-aza-1(4,2)-oxazola-3(1,5)-pyrrolacycloicosaphane-8,13,15-triene-2,4,10,19-tetraone

Synonyms: Mikamycin, RP 7293, Stapyocine, Streptogramin

MF: $C_{43}H_{49}N_7O_{10} \cdot C_{28}H_{35}N_3O_{10}$

FW: 1,396.6

Purity: $\geq 85\%$

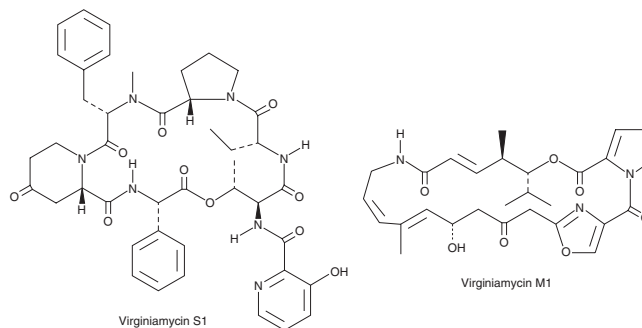
Supplied as: A crystalline solid

Storage: $-20^{\circ}C$

Stability: ≥ 4 years

Item Origin: Bacterium/*Streptomyces* sp. MST-AS4173

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



Description

Virginiamycin complex contains two streptogramin antibiotics, virginiamycin M1 (75%; Item No. 9002172) and virginiamycin S1 (25%; Item No. 17455), produced by *S. virginiae*. As a complex, the two antibiotics act synergistically to irreversibly inhibit protein synthesis in bacteria.¹ When given to livestock, virginiamycin improves growth.² Virginiamycin complex is also used in fuel ethanol fermenters to control bacteria competing with yeast for nutrients.³

References

1. Parfait, R. and Cocito, C. Lasting damage to bacterial ribosomes by reversibly bound virginiamycin M. *Proc. Natl. Acad. Sci. USA* **77(9)**, 5492-5496 (1980).
2. Feighner, S.D. and Dashkevich, M.P. Subtherapeutic levels of antibiotics in poultry feeds and their effects on weight gain, feed efficiency, and bacterial cholytaurine hydrolase activity. *Appl. Environ. Microbiol.* **53(2)**, 331-336 (1987).
3. Rich, J.O., Leathers, T.D., Nunnally, M.S., et al. Rapid evaluation of the antibiotic susceptibility of fuel ethanol contaminant biofilms. *Bioresour. Technol.* **102(2)**, 1124-1130 (2011).

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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