Virginiamycin S1
Item No. 17455

CAS Registry No.: 23152-29-6
Synonyms: Antibiotic 1754Z3B, Staphylomycin S1
MF: C₄₃H₄₉N₇O₁₀
FW: 823.9
Purity: ≥99%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years

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

Laboratory Procedures

Virginiamycin S1 is supplied as a solid. A stock solution may be made by dissolving the virginiamycin S1 in the solvent of choice. Virginiamycin S1 is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide, which should be purged with an inert gas.

Virginiamycin S1 is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Virginiamycin S1 is a macrolide antibiotic that is a component of the virginiamycin complex (Item No. 14503), which also contains virginiamycin M1 (Item No. 9002172). It is a member of the streptogramin B group of antibiotics, which bind the 50S ribosomal subunit at the peptidyl transferase center to inhibit initiation and translocation. They show good bactericidal activity against methicillin-resistant *S. aureus* (MRSA), although resistance in MRSA is conferred by the *cfr* gene. Virginiamycin S1 acts synergistically with virginiamycin M1 to irreversibly inhibit protein synthesis in bacteria.

References