

Product Name:	Virginiamycin S1
Product Number:	V014
CAS Number:	23152-29-6
Molecular Formula:	$C_{43}H_{49}N_7O_{10}$
Molecular Weight:	823.9
Form:	solid
Appearance:	White solid
Solubility:	soluble in ethanol, methanol, DMSO, and DMF
Source:	<i>Streptomyces virginiae</i>
Storage Conditions:	-20°C
Description:	Virginiamycin S1 is a cyclic hexadepsipeptide. Together with Virginiamycin M1 as a mixture, it works synergistically against Gram-positive bacteria with bacteriostatic properties. Commercial preparations of Virginiamycin is 25% S1 and 75% M1. Virginiamycin S1 differs from Virginiamycin B in that it lacks the dimethylamino moiety of the phenyl ring. Virginiamycin S1 is soluble in ethanol, methanol, DMSO, and DMF.
Mechanism of Action:	Virginiamycin S1 binds to the bacterial 50S ribosomal subunit, preventing aminoacyl-tRNA binding and peptide bond formation, thus inhibiting protein synthesis. The visG gene is required for biosynthesis of Virginiamycin S1.
References:	<p>Vanderhaeghe, H. et al. (1971) The structures of the minor components of virginiamycin S. Tet. Lett. 2687</p> <p>Crooy P. and De Neys R. J. (1972) Virginiamycin: nomenclature. J. Antibiot. (Tokyo) 25(6):371-372 PMID 4568014</p> <p>Ogata, K et al (1978) A new species of Streptomyces producing virginiamycin family antibiotics.. Antibiot. (Tokyo) 31(2):1313-1315 PMID 162634</p>