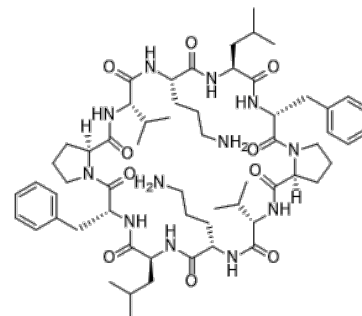


Product Name : Gramicidin S
Cat. No. : PC-28361
CAS No. : 113-73-5
Molecular Formula : C₆₀H₉₂N₁₂O₁₀
Molecular Weight : 1141.47
Target : Other Targets
Solubility : 10 mM in DMSO



Biological Activity

Gramicidin S (Gramicidin soviet) is a peptide **antibiotic** that selectively targets bacterial cell membranes and has anticancer activity, selectively accumulates within microbial cell membranes.

Gramicidin S exerts antibacterial activity by destroying membrane integrity and interfering with membrane protein function. Gramicidin S specifically binds to negatively charged membrane lipids and disrupts membrane structure, thereby inhibiting cell division and cell wall synthesis, then causing bacterial death.

Gramicidin S also inhibits ion channels, with IC₅₀s of 41 μM, 24 μM, and 3 μM for **Na⁺/K⁺-ATPase**, tobacco leaf plasma membrane Mg²⁺/K⁺-ATPase, and rat heart plasma membrane Ca²⁺-ATPase, respectively.

References

Miller RJ, et al. *Plant Physiol.* 1970 Sep;46(3):471-4.

Wenner CE, et al. *Biochemistry.* 1969 Mar;8(3):930-8.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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