

Product Name:	Gramicidin
Product Number:	G038
CAS Number:	1405-97-6
Molecular Formula:	Gramicidin A1: $C_{99}H_{140}N_{20}O_{17}$
Molecular Weight:	Gramicidin A1: 1882.29
Form:	Powder
Appearance:	White or almost White Crystalline Powder
Solubility:	Acetic acid: Soluble Lower alcohols: Soluble Water: Almost insoluble
Source:	<i>Bacillus Brevis</i>
Elemental Analysis:	Composition: Gramicidin A1, A2, B1, C1 and C2: $\geq 95.0\%$ Gramicidin A1: $\geq 60.0\%$
Melting Point:	$\geq 229^{\circ}\text{C}$
Storage Conditions:	2-8°C
Description:	Gramicidin is a combination of six different antimicrobial polypeptides. Gramicidin is insoluble in aqueous solution.
Mechanism of Action:	Gramicidin targets and inserts into the gram positive membrane where it disrupts normal permeability leading to cell death. Gramicidin is typically used as a topical antimicrobial agent because it also causes hemolysis of red blood cells
Spectrum:	Gramicidin targets primarily the cell membrane of Gram positive bacteria and shows little effect against Gram negative bacteria.
References:	Farmer, S. W., and et al. "Gramicidin S Is Active against Both Gram-positive and Gram-negative Bacteria." <i>International Journal of Peptide and Protein Research</i> 47.6 (1996): 460-66. www.ncbi.gov . Web. 4 Sept. 2012.