

PRODUCT INFORMATION



Gramicidin

Item No. 28251

CAS Registry No.: 1405-97-6
Synonym: Gramicidin D
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years

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

Laboratory Procedures

Gramicidin is supplied as a solid. A stock solution may be made by dissolving the gramicidin in the solvent of choice, which should be purged with an inert gas. Gramicidin is slightly soluble in ethanol.

Description

Gramicidin is a polypeptide antibiotic mixture of gramicidin A (Item No. 26384), gramicidin B, and gramicidin C originally isolated from *B. brevis*.¹ It is also a component of the antibiotic tyrothricin (Item No. 22177).² Gramicidin is active against the Gram-positive bacterium *S. aureus* but not Gram-negative *E. coli*.³ It also protects mice from *Pneumococcus* infection *in vivo* when administered at a dose of 0.002 mg/animal. Gramicidin inhibits growth of bacteria by forming pores and channels in the cell wall, which increases its permeability to monovalent cations.¹ Formulations containing gramicidin have been used as topical agents in the treatment of bacterial skin infections.

References

1. Wallace, B.A. Gramicidin channels and pores. *Annu. Rev. Biophys. Biophys. Chem.* **19**, 127-157 (1990).
2. Brewer, G.A. Gramicidin. *Analytical profiles of drug substances*. Florey, K., editor, *Academic Press* (1979).
3. Dubos, R.J. and Hotchkiss, R.D. The production of bactericidal substances by aerobic sporulating bacilli. *J. Exp. Med.* **73**(5), 629-640 (1941).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/28/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM