

# PRODUCT INFORMATION



## Cinnamycin

Item No. 20136

CAS Registry No.: 110655-58-8

Formal Name: L-cysteinyll-L-arginyll-L-glutaminyll-D-cysteinyll-L-cysteinyll-3-aminoalanyl-L-phenylalanyllglycyl-L-prolyll-L-phenylalanyl-(2S,3S)-2-amino-3-mercaptoputanoyll-L-phenylalanyl-L-valyll-L-cysteinyll-(3R)-3-hydroxy-L-a-aspartylglycyl-L-asparaginyll-(2S,3S)-2-amino-3-mercaptoputanoyll-L-lysine,cyclic (1→18),(4→14),(5→11)-tris(thioether),cyclic (6→19)-imine  
Lanthiopeptin, NSC 71936, Ro 09-0198

Synonyms:

MF:  $C_{89}H_{125}N_{25}O_{25}S_3$

FW: 2,041.3

Purity: ≥85%

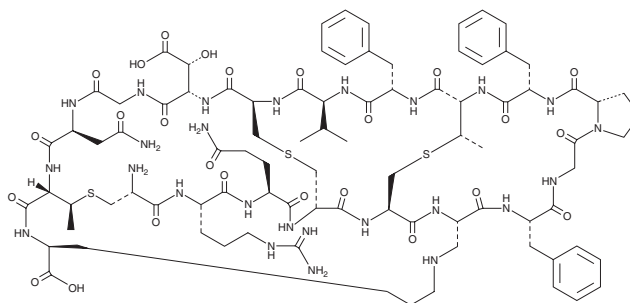
Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Bacterium/*Streptomyces* sp.

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



### Laboratory Procedures

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

### Description

Cinnamycin is tetracyclic lantibiotic produced from *S. cinnamoneus* that contains four unusual amino acids: erythro-β-hydroxyaspartic acid, mesolanthionine, *threo*-β-methylanthionine, and lysinoalanine.<sup>1</sup> Cinnamycin has demonstrated antiviral activity against herpes simplex virus type 1 KOS strain infection in Vero cells via a cytopathic effect reduction assay.<sup>1</sup> Cinnamycin recognizes the structure of phosphatidylethanolamine and forms an equimolar complex with the phospholipid on biological membranes.<sup>2</sup> This peptide has been used as a probe for analyzing the transbilayer movement of phosphatidylethanolamine.<sup>3</sup>

### References

1. Naruse, N., Tenmyo, O., Tomita, K., et al. *J. Antibiot. (Tokyo)* **42(6)**, 837-845 (1989).
2. Brötz, H., Sahl, H.-G. *J. Antimicrob. Chemother.* **46(1)**, 1-6 (2000).
3. Aoki, Y., Uenaka, T., Aoki, J., et al. *J. Bio. Chem.* **116(2)**, 291-297 (1994).

#### 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.

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