

PRODUCT INFORMATION



L-681,217

Item No. 26689

Formal Name: (2E,4E,6E)-7-((2S,3S,5R)-3-hydroxy-5-((2S,3S,4E,6E)-3-methoxy-4-methyl-8-((2S)-2-((2S,4S,6S)-2,4,5-trihydroxy-5-methyl-6-((1Z,3Z)-penta-1,3-dien-1-yl)tetrahydro-2H-pyran-2-yl)butanamido)octa-4,6-dien-2-yl)tetrahydrofuran-2-yl)hepta-2,4,6-trienoic acid

MF: C₃₆H₅₃NO₁₀

FW: 659.8

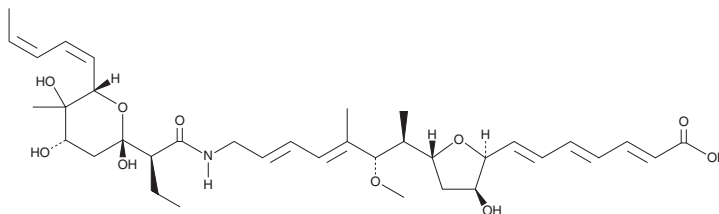
Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Bacterium/*Streptomyces* sp. MST-AS5568



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

Laboratory Procedures

L-681,217 is supplied as a solid. A stock solution may be made by dissolving the L-681,217 in the solvent of choice, which should be purged with an inert gas. L-681,217 is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide.

Description

L-681,217 is an antibiotic originally isolated from *S. cattleya*.¹ It is active against Gram positive and Gram negative bacteria when used at a concentration of 255 µg/ml. L-681,217 inhibits bacterial protein synthesis at the elongation stage, completely inhibiting poly(U)-dependent poly(Phe) synthesis (EC₅₀ = 0.4 µM) and increasing elongation factor Tu (EF-Tu)-associated GTPase activity in *E. coli* (EC₅₀ = 6 µM).² It does not inhibit poly(U)-dependent poly(Phe) synthesis in *S. aureus* (EC₅₀ = >1,000 µM).

References

1. Kempf, A.J., Wilson, K.E., Hensens, O.D., *et al.* L-681,217, a new and novel member of the efrotomycin family of antibiotics. *J. Antibiot. (Tokyo)* **39(10)**, 1361-1367 (1986).
2. Hall, C.C., Watkins, J.D., and Georgopapadakou, N.H. Effects of elfamycins on elongation factor Tu from *Escherichia coli* and *Staphylococcus aureus*. *Antimicrob. Agents Chemother.* **33(3)**, 322-325 (1989).

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, 07/10/2025

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