

PRODUCT INFORMATION



Feglymycin

Item No. 28166

CAS Registry No.: 209335-49-9
Formal Name: (2R)-2-(4-hydroxyphenyl)glycyl-(2R)-2-(3,5-dihydroxyphenyl)glycyl-L-valyl-(2R)-2-(3,5-dihydroxyphenyl)glycyl-(2S)-2-(4-hydroxyphenyl)glycyl-(2R)-2-(3,5-dihydroxyphenyl)glycyl-(2S)-2-(4-hydroxyphenyl)glycyl-L-valyl-(2R)-2-(3,5-dihydroxyphenyl)glycyl-(2S)-2-(4-hydroxyphenyl)glycyl-L-phenylalanyl-L-aspartic acid

MF: C₉₅H₉₇N₁₃O₃₀

FW: 1,900.9

Purity: ≥95%

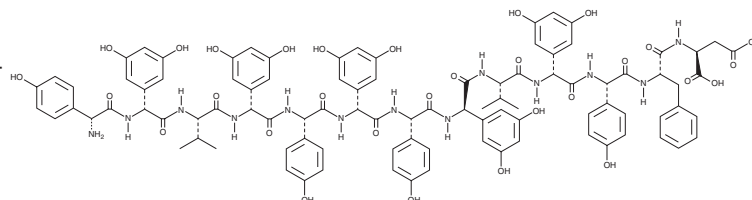
Supplied as: A solid

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

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

Description

Feglymycin is a 13-amino acid peptide originally isolated from *Streptomyces* that has antibacterial and antiviral activities.¹ It is active against Gram-positive bacteria (MICs = 32-64 µg/ml) and inhibits HIV viral replication in H9 cells (IC₅₀ = ~5 µM). Feglymycin is also active against clinical isolates of HIV-1 from clades A-D, A/E, and G (EC₅₀s = 0.5-6.7 µM).² It interacts with gp120 and inhibits HIV-1 NL4.3 binding to human soluble CD4 (EC₅₀ = 4.4 µM) and to CD4⁺ SupT1 T cells by 74.5% when used at a concentration of 10.5 µM. Feglymycin inhibits the *E. coli* peptidoglycan biosynthesis enzymes MurA and MurC (K_is = 3.4 and 0.3 µM, respectively) in a noncompetitive manner.³

References

1. Vértesy, L., Aretz, W., Knauf, M., *et al.* Feglymycin, a novel inhibitor of the replication of the human immunodeficiency virus. Fermentation, isolation and structure elucidation. *J. Antibiot. (Tokyo)* **52(4)**, 374-382 (1999).
2. Férier, G., Hänchen, A., François, K.O., *et al.* Feglymycin, a unique natural bacterial antibiotic peptide, inhibits HIV entry by targeting the viral envelope protein gp120. *Virology* **433(2)**, 308-319 (2012).
3. Rausch, S., Hänchen, A., Denisiuk, A., *et al.* Feglymycin is an inhibitor of the enzymes MurA and MurC of the peptidoglycan biosynthesis pathway. *Chembiochem* **12(8)**, 1171-1173 (2011).

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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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