

PRODUCT INFORMATION

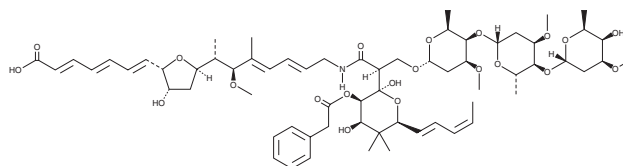


Phenelfamycin E

Item No. 28168

CAS Registry No.: 114451-31-9

Formal Name: benzeneacetic acid, (2R,3R,4R,6S)-2-[(1S)-2-[[[(2E,4E,6S,7S)-7-[(2R,4S,5S)-5-[(1E,3E,5E)-6-carboxy-1,3,5-hexatrienyl]tetrahydro-4-hydroxy-2-furanyl]-6-methoxy-5-methyl-2,4-octadienyl]amino]-1-[[[O-2,6-dideoxy-3-O-methyl- α -L-lyxo-hexopyranosyl-(1 \rightarrow 4)-O-2,6-dideoxy-3-O-methyl- β -L-ribo-hexopyranosyl-(1 \rightarrow 4)-2,6-dideoxy-3-O-methyl- α -L-lyxo-hexopyranosyl]oxy)methyl]-2-oxoethyl]tetrahydro-2,4-dihydroxy-5,5-dimethyl-6-[[[1E,3Z)-1,3-pentadienyl]-2H-pyran-3-yl] ester



Synonym: Ganefromycin α

MF: C₆₅H₉₅NO₂₁

FW: 1,226.4

Purity: \geq 95%

Supplied as: A solid

Storage: -20°C

Stability: \geq 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

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

Phenelfamycin E is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Phenelfamycin E is an antibiotic originally isolated from *Streptomyces*.¹ It is active against β -hemolytic *Streptococcus*, *S. pneumoniae*, *C. difficile*, *C. perfringens*, and *P. magnus* Gram-positive bacteria (MICs = 0.12-1, 0.25-2, 4, 16, and 0.12 μ g/ml, respectively) but not a panel of seven Gram-negative bacteria (MICs = >128 μ g/ml).² Phenelfamycin E (4-64 mg/kg) increases survival in a mouse model of lethal *S. pyogenes* infection in a dose-dependent manner. Dietary administration of phenelfamycin E increases body weight in chickens.

References

1. Hochlowski, J.E., Buytendorp, M.H., Whittern, D.N., *et al.* Phenelfamycins, a novel complex of elfamycin-type antibiotics. II. Isolation and structure determination. *J. Antibiot. (Tokyo)* **41(10)**, 1300-1305 (1988).
2. Maiese, W.M., Lechevalier, M.P., Lechevalier, H.A., *et al.* LL-E19020 α and β , animal growth promoting antibiotics: Taxonomy, fermentation and biological activity. *J. Antibiot. (Tokyo)* **42(10)**, 1489-1493 (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

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