

PRODUCT INFORMATION



Foroxymithine

Item No. 40228

CAS Registry No.: 100157-28-6
Formal Name: N²-acetyl-N⁵-formyl-N⁵-hydroxy-L-ornithyl-N-[3-[(2S,5S)-5-[3-(formylhydroxyamino)propyl]-3,6-dioxo-2-piperazinyl]propyl]-N-hydroxy-L-serinamide

MF: C₂₂H₃₇N₇O₁₁

FW: 575.6

Purity: ≥95%

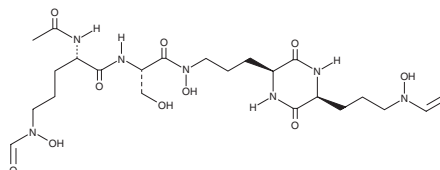
Supplied as: A solid

Storage: -20°C

Stability: ≥1 year

Item Origin: Bacterium/*Streptomyces nitrosporeus*

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



Laboratory Procedures

Foroxymithine is supplied as a solid. A stock solution may be made by dissolving the foroxymithine in the solvent of choice, which should be purged with an inert gas. Foroxymithine is soluble in organic solvents such as DMSO and methanol. It is also soluble in water. It is slightly soluble in methanol. We do not recommend storing the aqueous solution for more than one day.

Description

Foroxymithine is a microbial metabolite that has been found in *S. nitrosporeus* and an angiotensin-converting enzyme (ACE) inhibitor (IC₅₀ = 7 µg/ml for the bovine lung enzyme).¹ It is selective for ACE over nine peptidases (IC₅₀s = >100 µg/ml for all). *In vivo*, foroxymithine (25 and 50 mg/kg) reduces systolic blood pressure in spontaneously hypertensive rats (SHRs). Foroxymithine is also an iron chelator that inhibits the degradation of the tyrosine kinase inhibitor erbstatin (Item No. 37706) and enhances erbstatin-induced reduction of tumor growth in an MCF-7 mouse xenograft model.²

References

1. Umezawa, H., Aoyagi, T., Ogawa, K., *et al.* Foroxymithine, a new inhibitor of angiotensin-converting enzyme, produced by actinomycetes. *J. Antibiot. (Tokyo)* **38(12)**, 1813-1815 (1985).
2. Toi, M., Mukaida, H., Wada, T., *et al.* Antineoplastic effect of erbstatin on human mammary and esophageal tumors in athymic nude mice. *Eur. J. Cancer* **26(6)**, 722-724 (1990).

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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