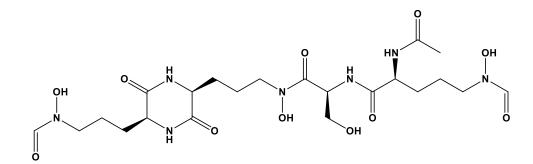


Institute of Microbial Chemistry (BIKAKEN)

5-001

PRODUCT DATA SHEET

Foroxymithine (ACE Inhibitor, Hypotensive, Siderophore)



Specifications

Code No	: 16968
CAS#	: 100157-28-6
Molecular Formula	: C ₂₂ H ₃₇ N ₇ O ₁₁
Molecular Weight	: 575.576
Source	: Streptomyces nitrosporeus
Appearance	: Powder
Purity	: > 95% (HPLC)
Long Term Storage	: at - 20 °C
Solubility	: Soluble in H ₂ O, DMSO
	Fairly soluble in MeOH

The chemical structure was confirmed by NMR and HRMS.

Application Notes

Foroxymithine was isolated from culture filtrate of *Streptomyces nitrosporeus* MG329-CF56 as an inhibitor of angiotensin-converting enzyme (ACE).¹⁾ It showed an IC₅₀ value of 7 µg/ml against ACE (bovine lung).¹⁾ The oral administration of foroxymithine dihydrate significantly reduced systolic blood pressure in spontaneously hypertensive rats.¹⁾ A tyrosine kinase inhibitor, erbstatin, is decomposed in serum by ferric ion. Foroxymithine is a siderophore, a potent chelator of ferric ion, and prevented its decomposition by serum.²⁾

References

- 1) Foroxymithine, a new inhibitor of angiotensin-converting enzyme, produced by Actinomycetes. Umezawa H, *et al. J Antibiot*. 1985 **38**(12) 1813-1815.
- 2) Antitumor activity of erbstatin, a tyrosine protein kinase inhibitor. Imoto M., et al. Jpn. J. Cancer Res. 1987 78 329-332.