

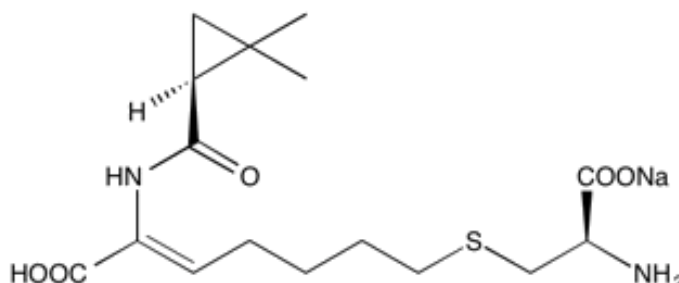
Catalog # 10-2233

Cilastatin Na

CAS# 81129-83-1

(2Z)-7-[[[(2R)-2-Amino-2-carboxyethyl]thio]-2-[[[(1S)-2,2-dimethylcyclopropyl]-carbonyl]amino]-2-heptenoic acid, sodium salt
MK 0791

Lot # X101106



Dehydropeptidase-1 inhibitor. Inhibits the proteolytic conversion of leukotriene D₄ to E₄.¹ Inhibits the mammalian β-lactamase renal dipeptidase (dehydropeptidase-1, DPEP1) and thus is used as an antibacterial adjunct to extend the half-life of β-lactam antibiotics.² Cilastatin also inhibits bacterial metallo-β-lactamase and thereby may block resistance to the carbapenem family of antibiotics in certain bacteria.³ Suppresses invasion and metastasis of DPEP1-expressing tumor cells.⁴

- 1) White *et al.* (1999), *A continuous fluorometric assay for Leukotriene D₄ hydrolase*; *Anal. Biochem.*, **268** 245
- 2) Graham *et al.* (1987), *Inhibition of the mammalian beta-lactamase renal dipeptidase (dehydropeptidase-I) by (Z)-2-acylamino-3-substituted propenoic acids*; *J. Med. Chem.*, **30** 1074
- 3) Keynan *et al.* (1995), *The renal membrane dipeptidase (dehydropeptidase I) inhibitor, cilastatin, inhibits the bacterial metallo-beta-lactamase enzyme CphA*; *Antimicrob. Agents Chemother.*, **39** 1629
- 4) Park *et al.* (2016), *Dehydropeptidase 1 promotes metastasis through regulation of E-cadherin expression in colon cancer*; *Oncotarget*, **7** 9501

PHYSICAL DATA

Molecular Weight:	380.43
Molecular Formula:	C ₁₆ H ₂₅ N ₂ O ₅ S Na
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 3 mg/ml) or Water (up to 35 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied, desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or distilled water may be stored at -20°C for up to 3 months.

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