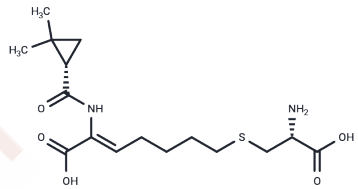
Data Sheet (Cat.No.T2583)

TargetMol

Cilastatin

Chemical Properties



CAS No. : 82009-34-5

Formula: C16H26N2O5S

Molecular Weight: 358.45

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Cilastatin (MK0791) is a renal dehydropeptidase-I and leukotriene D4 dipeptidase inhibitor. Since the antibiotic, IMIPENEM, is hydrolyzed by dehydropeptidase-I, which resides in the brush border of the renal tubule, cilastatin is administered with imipenem to increase its effectiveness. The drug also inhibits the metabolism of leukotriene D4 to leukotriene E4.
Targets(IC50)	Proteasome,Antibacterial,Antibiotic

Solubility Information

Solubility	DMSO: 45 mg/mL (125.54 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7898 mL	13.9489 mL	27.8979 mL
5 mM	0.558 mL	2.7898 mL	5.5796 mL
10 mM	0.279 mL	1.3949 mL	2.7898 mL
50 mM	0.0558 mL	0.279 mL	0.558 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Farrell CA, et al. Arch Biochem Biophys. 1987 Jul;256(1):253-9.

Huo X, Meng Q, Wang C, et al. Protective effect of cilastatin against diclofenac-induced nephrotoxicity in mice through interaction with diclofenac acyl glucuronide via OATs. British Journal of Pharmacology. 2020, 177(9): 1933-1948.

Huo X, Meng Q, Wang C, et al. Protective effect of cilastatin against diclofenac-induced nephrotoxicity in mice through interaction with diclofenac acyl glucuronide via OATs[J]. British Journal of Pharmacology. 2020, 177(9): 1933-1948.

Tel:781-999-4286 E_mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481