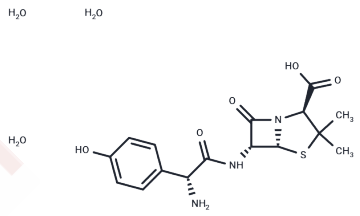
Data Sheet (Cat.No.T1005L)

TargetMol

Amoxicillin trihydrate

Chemical Properties



CAS No. :	61336-70-7
Formula:	C16H25N3O8S
Molecular Weight:	419.45
Appearance:	no data available
Storage:	keep away from moisture,keep away from direct sunlight Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Amoxicillin trihydrate (Moxaline trihydrate) binds to and inactivates penicillin-binding protein (PBP) 1A located on the inner membrane of the bacterial cell wall. Amoxicillin trihydrate is a broad-spectrum, semisynthetic aminopenicillin antibiotic with bactericidal activity. Inactivation of PBPs interferes with the cross-linkage of peptidoglycan chains necessary for bacterial cell wall strength and rigidity. This interrupts bacterial cell wall synthesis and results in the weakening of the bacterial cell wall and causes cell lysis.
Targets(IC50)	Antibacterial,Antibiotic
In vivo	A 25 microliter volume of a 1-% L-epinephrine borate solution applied on the cornea of one eye in 12 monkeys reduces blood flow through the iris and the ciliary body by 59% and 20%, respectively, compared to the untreated control eyes[1]. Epinephrine is a direct-acting sympathomimetic α-adrenergic and β-adrenergic agonist with cyclic adenosine monophosphate-mediated, complex, bidirectional pharmacologic effects on many target organs[2]. In young adult rats, endogenous release of epinephrine facilitates stable memory formation for temporally associated events. Epinephrine enhances memory in young adult rats, in part, by increasing blood glucose levels needed to modulate memory[3]. Epinephrine is the primary drug administered during cardiopulmonary resuscitation (CPR) to reverse cardiac arrest. Epinephrine increases arterial blood pressure and coronary perfusion during CPR via alpha-1-adrenoceptor agonist effects[4].

Solubility Information

Solubility	DMSO: 60 mg/mL (143.04 mM),Sonication is recommended. H2O: 1.25 mg/mL (2.98 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3841 mL	11.9204 mL	23.8407 mL
5 mM	0.4768 mL	2.3841 mL	4.7681 mL
10 mM	0.2384 mL	1.192 mL	2.3841 mL
50 mM	0.0477 mL	0.2384 mL	0.4768 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

Shen X,et al. In vitro anti-bacterial activity and network pharmacology analysis of Sanguisorba officinalis L. against Helicobacter pylori infection. Chin Med. 2021 Apr 17;16(1):33.