Data Sheet (Cat.No.T21508)



Anhydrotetracycline hydrochloride

Chemical Properties

CAS No.: 13803-65-1

Formula: C22H23ClN2O7

Molecular Weight: 462.88

Appearance: no data available

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

Biological Description

Description	Anhydrotetracycline (hydrochloride) is a potent competitive inhibitor of broad-spectrum tetracycline destructase enzymes.
Targets(IC50)	Antibacterial, Antibiotic
In vitro	Anhydrotetracycline (hydrochloride), a tetracycline biosynthetic precursor, inhibited Tet50, TetX, TetX-3 degradations of tetracyclines with the IC50s of 210 μM, 41 μM and 3 μM,respectively. Anhydrotetracycline (hydrochloride) inhibited Tet50, TetX, TetX-3 degradations of demeclocycline with the IC50s of 120 μM, 41 μM, 7 μM,respectively. Anhydrotetracycline (hydrochloride) inhibited Tet50, TetX, TetX-3 degradations of chlortetracycline with the IC50s of 210 μM, 75 μM, 26 μM,respectively[1].

Solubility Information

Solubility	DMSO: 125 mg/mL (270.05 mM), Sonication is recommended.
	(< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1604 mL	10.8019 mL	21.6039 mL
5 mM	0.4321 mL	2.1604 mL	4.3208 mL
10 mM	0.216 mL	1.0802 mL	2.1604 mL
50 mM	0.0432 mL	0.216 mL	0.4321 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

Jana L Markley, et al. Semisynthetic Analogues of Anhydrotetracycline as Inhibitors of Tetracycline Destructase Enzymes. ACS Infect Dis. 2019 Apr 12;5(4):618-633.

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