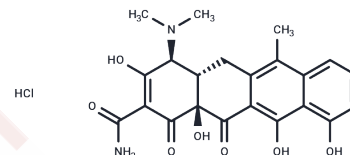


Anhydrotetracycline hydrochloride

Chemical Properties

CAS No. :	13803-65-1
Formula:	C ₂₂ H ₂₃ ClN ₂ O ₇
Molecular Weight:	462.88
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



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 μ M, 41 μ M and 3 μ M, respectively. Anhydrotetracycline (hydrochloride) inhibited Tet50, TetX, TetX-3 degradations of demeclocycline with the IC50s of 120 μ M, 41 μ M, 7 μ M, respectively. Anhydrotetracycline (hydrochloride) inhibited Tet50, TetX, TetX-3 degradations of chlortetracycline with the IC50s of 210 μ M, 75 μ M, 26 μ M, 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)
In vivo Formulation	10% DMSO+90% Saline: 3.3 mg/mL (7.13 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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