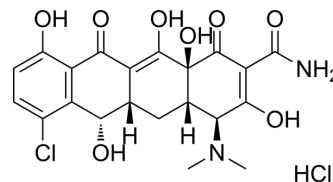


Demeclocycline hydrochloride

Cat. No.:	HY-17560
CAS No.:	64-73-3
Molecular Formula:	C ₂₁ H ₂₂ Cl ₂ N ₂ O ₈
Molecular Weight:	501.31
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (199.48 mM; Need ultrasonic)					
	H ₂ O : 33.33 mg/mL (66.49 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		1.9948 mL	9.9739 mL	19.9477 mL
5 mM			0.3990 mL	1.9948 mL	3.9895 mL	
	10 mM		0.1995 mL	0.9974 mL	1.9948 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (4.99 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (4.99 mM); Suspended solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	Demeclocycline hydrochloride is a tetracycline antibiotic; is an antibiotic in the treatment of Lyme disease, acne, and bronchitis.
IC₅₀ & Target	Tetracycline

CUSTOMER VALIDATION

- Mol Syst Biol. 2022 Sep;18(9):e11081.

- Chemosphere. 2019 Jun;225:378-387.
- J Photoch Photobio A. 2020 May.
- Patent. US20230014181.

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REFERENCES

- [1]. Cherrill DA, et al. Demeclocycline treatment in the syndrome of inappropriate antidiuretic hormone secretion. *Ann Intern Med.* 1975 Nov;83(5):654-6.
- [2]. Singer I, et al. Demeclocycline-induced nephrogenic diabetes insipidus. In-vivo and in-vitro studies. *Ann Intern Med.* 1973 Nov;79(5):679-83.
- [3]. Forrest JN Jr, et al. Superiority of demeclocycline over lithium in the treatment of chronic syndrome of inappropriate secretion of antidiuretic hormone. *N Engl J Med.* 1978 Jan 26;298(4):173-7.
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Caution: Product has not been fully validated for medical applications. For research use only.

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