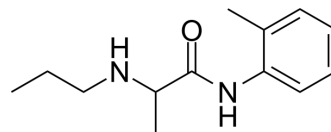


Prilocaine

Cat. No.:	HY-B0137
CAS No.:	721-50-6
Molecular Formula:	C ₁₃ H ₂₀ N ₂ O
Molecular Weight:	220.31
Target:	Na ⁺ /K ⁺ ATPase
Pathway:	Membrane Transporter/Ion Channel
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (453.91 mM; Need ultrasonic)
 H₂O : 2.5 mg/mL (11.35 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	4.5391 mL	22.6953 mL	45.3906 mL
	5 mM	0.9078 mL	4.5391 mL	9.0781 mL
	10 mM	0.4539 mL	2.2695 mL	4.5391 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: PBS
Solubility: 50 mg/mL (226.95 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (11.35 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (11.35 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (11.35 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Prilocaine, an amino amide, is a Na, K-ATPase inhibitor. Prilocaine has neurotoxic effects^{[1][2]}.

IC₅₀ & Target

Na, K-ATPase^[2]

In Vitro

Prilocaine is more potent in inhibiting the Na,K-ATPase of plasma membranes of LM cells (transformed fibroblasts) at 37 °C (43.8 mM) than at 25 °C (28.2 mM)^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Stem Cell Res Ther. 2021 Feb 4;12(1):107.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. M Mete, et al. Neurotoxic effects of local anesthetics on the mouse neuroblastoma NB2a cell line. Biotech Histochem. 2015 Apr;90(3):216-22.
- [2]. H Kutchai, et al. Effects of local anaesthetics on the activity of the Na,K-ATPase of canine renal medulla. Pharmacol Res. 2000 Jan;41(1):1-7.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA