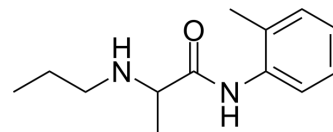


## Prilocaine

Cat. No.:	HY-B0137
CAS No.:	721-50-6
Molecular Formula:	C <sub>13</sub> H <sub>20</sub> N <sub>2</sub> O
Molecular Weight:	220.31
Target:	Na <sup>+</sup> /K <sup>+</sup> 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)  
 H<sub>2</sub>O : 2.5 mg/mL (11.35 mM; Need ultrasonic)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	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<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

Na, K-ATPase<sup>[2]</sup>

#### 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)<sup>[2]</sup>.

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](http://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.**

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