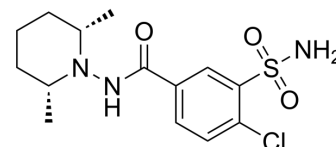


## Cloпамide

Cat. No.:	HY-B1477	
CAS No.:	636-54-4	
Molecular Formula:	C <sub>14</sub> H <sub>20</sub> ClN <sub>3</sub> O <sub>3</sub> S	
Molecular Weight:	345.84	
Target:	Sodium Channel	
Pathway:	Membrane Transporter/Ion Channel	
Storage:	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (289.15 mM; Need ultrasonic)																													
	Preparing Stock Solutions	<table border="1"> <thead> <tr> <th>Solvent</th> <th>Mass</th> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> <tr> <th colspan="2">Concentration</th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>1 mM</td> <td></td> <td>2.8915 mL</td> <td>14.4576 mL</td> <td>28.9151 mL</td> </tr> <tr> <td>5 mM</td> <td></td> <td>0.5783 mL</td> <td>2.8915 mL</td> <td>5.7830 mL</td> </tr> <tr> <td>10 mM</td> <td></td> <td>0.2892 mL</td> <td>1.4458 mL</td> <td>2.8915 mL</td> </tr> </tbody> </table>	Solvent	Mass	1 mg	5 mg	10 mg	Concentration					1 mM		2.8915 mL	14.4576 mL	28.9151 mL	5 mM		0.5783 mL	2.8915 mL	5.7830 mL	10 mM		0.2892 mL	1.4458 mL	2.8915 mL			
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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 (7.23 mM); Clear solution																													
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (7.23 mM); Clear solution																													
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (7.23 mM); Clear solution																													

### BIOLOGICAL ACTIVITY

Description	Cloпамide is an orally active thiazide-like diuretic agent that inhibits the sodium-coupled chloride cotransporter SLC12A3. Cloпамide has the potential for hypertension and cardiac failure research <sup>[1][2]</sup> .
In Vitro	Cloпамide is actively secreted by renal tubular cells and the True Tubular Excretion Fraction (TTEF) value is 10% <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	The vasoconstrictor response to bradykinin is attenuated after oral administration of Cloпамide (0.5 mg/kg), and by concomitant local infusion of cyclosporine-A (1-10 μg/min) in conscious dogs <sup>[4]</sup> .

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## CUSTOMER VALIDATION

- J Pharmaceut Biomed. 2020, 113870.

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## REFERENCES

- [1]. J J McNeil, et al. Clopamide: plasma concentrations and diuretic effect in humans. *Clin Pharmacol Ther.* 1987 Sep;42(3):299-304.
- [2]. Yoshiteru Noutoshi, et al. Diuretics prime plant immunity in *Arabidopsis thaliana*. *PLoS One.* 2012;7(10):e48443.
- [3]. B Odland, et al. Renal tubular secretion and effects of chlorothiazide, hydrochlorothiazide and clopamide: a study in the avian kidney. *Acta Pharmacol Toxicol (Copenh).* 1982 Sep;51(3):187-97.
- [4]. E Müller-Schweinitzer, et al. Interaction of cyclosporine-A with the renin-angiotensin system in canine veins. *Naunyn Schmiedebergs Arch Pharmacol.* 1989 Aug;340(2):252-7.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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