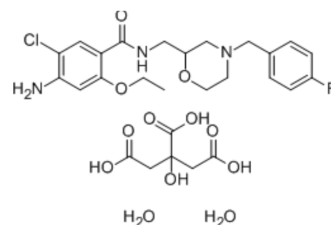


Mosapride citrate dihydrate

Cat. No.:	HY-B0189B
CAS No.:	636582-62-2
Molecular Formula:	C ₂₇ H ₃₇ ClFN ₃ O ₁₂
Molecular Weight:	650.05
Target:	5-HT Receptor; Potassium Channel; Cytochrome P450
Pathway:	GPCR/G Protein; Neuronal Signaling; Membrane Transporter/Ion Channel; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Mosapride (TAK-370) citrate dehydrate is a gastroprokinetic agent with 5-hydroxytryptamine ₄ receptor agonist activity and has been widely used in the research of a variety of gastrointestinal disorders. Mosapride citrate dihydrate potently inhibits Kv4.3 in a concentration-dependent manner with IC ₅₀ values of 15.2 μM ^[1] . Mosapride citrate dihydrate selectively stimulates upper GI motility in vivo ^[2] .	
IC₅₀ & Target	5-HT ₄ Receptor	Kv4.3 15.2 μM (IC ₅₀)
In Vitro	Mosapride (0.3-30 μM) exhibits an inhibitory activity against Kv4.3 with an IC ₅₀ of 15.2 μM in a concentration-dependent manner. Mosapride also inhibits the open state of Kv4.3 currents during depolarization and accelerates the closed-state inactivation at subthreshold potentials ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Mosapride (Intravenous injection; 0.3-3 mg/kg) dose-dependently increases the antral motor activity in conscious dogs which indicates that mosapride selectively stimulates upper gastrointestinal motility ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Beagle dogs ^[2]
	Dosage:	0.3-3 mg/kg
	Administration:	Intravenous injection; 0.3-3 mg/kg
	Result:	Increased the antral motor activity dose-dependently in conscious dogs.

CUSTOMER VALIDATION

- J Appl Microbiol. 2023 Jul 22;ixad153.
- Chin J Integr Med. 2022 Aug 31.

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- Drug Metab Pharmacokinet. 2020 Feb;35(1):102-110.

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REFERENCES

- [1]. Sung KW, et al. Effect of mosapride on Kv4.3 potassium channels expressed in CHO cells. Naunyn-Schmiedeberg's archives of pharmacology. 2013;386(10):905-16.
- [2]. Mine Y, et al. Comparison of effect of mosapride citrate and existing 5-HT4 receptor agonists on gastrointestinal motility in vivo and in vitro. The Journal of pharmacology and experimental therapeutics. 1997;283(3):1000-8.
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Caution: Product has not been fully validated for medical applications. For research use only.

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