

Gallopamil hydrochloride

Chemical Properties

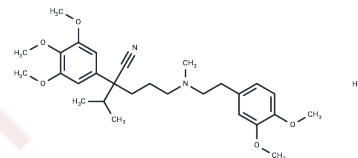
CAS No. : 16662-46-7

Formula: C₂₈H₄₁ClN₂O₅

Molecular Weight: 521.09

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Gallopamil hydrochloride (Methoxyverapamil hydrochloride) is an antagonist of phenylalkylamine calcium. Gallopamil hydrochloride can be used in antiarrhythmic and vasodilator studies.
Targets(IC ₅₀)	Calcium Channel
In vitro	Gallopamil hydrochloride inhibits acid secretion in a concentration-dependent manner with an IC ₅₀ of 10.9 μM[1].
In vivo	In male Wistar rats, Gallopamil hydrochloride (0.2 mg/kg; i.v. for 5 min) markedly reduces ventricular tachycardia and totally prevents fibrillation. Gallopamil hydrochloride significantly reduces systolic and diastolic blood pressure measured 5 min after injection without markedly influencing heart rate[2].

Solubility Information

Solubility	DMSO: 60 mg/mL (115.14 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9191 mL	9.5953 mL	19.1905 mL
5 mM	0.3838 mL	1.9191 mL	3.8381 mL
10 mM	0.1919 mL	0.9595 mL	1.9191 mL
50 mM	0.0384 mL	0.1919 mL	0.3838 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Sewing KF, et al. Calcium channel antagonists verapamil and gallopamil are powerful inhibitors of acid secretion in isolated and enriched guinea pig parietal cells. *Pharmacology*. 1983;27(1):9-14.

Kirchengast M, et al. Reperfusion arrhythmias in closed-chest rats: the effect of myocardial noradrenaline depletion and Ca²⁺-antagonism. *Clin Exp Pharmacol Physiol*. 1991 Apr;18(4):217-21.

Brogden RN, et al. Gallopamil. A review of its pharmacodynamic and pharmacokinetic properties, and therapeutic potential in ischaemic heart disease. *Drugs*. 1994 Jan;47(1):93-115.

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