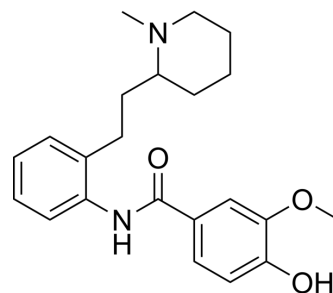


Modecainide

Cat. No.:	HY-101723		
CAS No.:	81329-71-7		
Molecular Formula:	C ₂₂ H ₂₈ N ₂ O ₃		
Molecular Weight:	368.47		
Target:	Drug Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

Methanol : ≥ 250 mg/mL (678.48 mM)
 DMSO : 100 mg/mL (271.39 mM; Need ultrasonic)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		2.7139 mL	13.5696 mL	27.1392 mL
	5 mM		0.5428 mL	2.7139 mL	5.4279 mL
	10 mM		0.2714 mL	1.3570 mL	2.7139 mL

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

BIOLOGICAL ACTIVITY

Description

Modecainide is a major metabolite of Encainide, which is an antiarrhythmic agent.

In Vivo

The effect of Encainide and its two major metabolites, O-demethylated Encainide (MJ 9444) and 3-O-methoxy Encainide (MJ 14030), on cardiac conduction is studied by recording His bundle potentials in isolated perfused rabbit hearts and Purkinje and muscle conduction in vivo in dog hearts after destruction of the atrioventricular node. Both metabolites are 4 to 15 times more potent than Encainide in slowing conduction through the atria, the AV-node and the His-Purkinje system of the rabbit heart. In the dog, Encainide (0.8-3.2 mg/kg i.v.) slows conduction of extrasystoles in both Purkinje and muscle at all coupling intervals, increases the effective refractory period and the functional refractory period of the Purkinje pathway. MJ 9444 (0.05-0.4 mg/kg) speeds Purkinje conduction of early (less than 300 msec) without affecting or while slowing conduction of late (greater than 350 msec) extrasystoles. Higher doses (0.4-1.6 mg/kg) slows conduction at all intervals. The effective refractory period and the functional refractory period are decreased but in some cases returned to control values at the higher doses. Muscle conduction is slowed at doses of 0.4 mg/kg or more. MJ 14030 (0.05-3.2 mg/kg) has variable effects, behaving like MJ 9444 in three experiments but like the parent compound in two others^[1].

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

REFERENCES

[1]. Dresel PE. Effect of encainide and its two major metabolites on cardiac conduction. J Pharmacol Exp Ther. 1984 Jan;228(1):180-6.

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

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