Product Data Sheet

Product Name: Modecainide (BMY 40327)
Cat. No.: GC32535

Chemical Properties

Cas. No.	81329-71-7		
SMILES	O=C(NC1=CC=CC=C1CCC2N(C)CCCC2)C3=CC=C(O)C(OC)=C3		
Formula	$C_{22}H_{28}N_2O_3$	M.Wt	368.47
Solubility	Methanol : ≥ 250 mg/mL (678.48 mM); DMSO : 100 mg/mL (271.39 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Modecainide (BMY 40327)		

Background

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

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

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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].

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

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