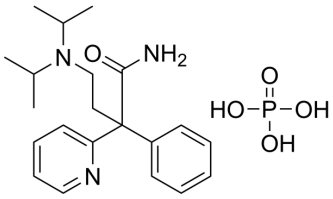
Disopyramide phosphate

Cat. No.:	HY-12533A
CAS No.:	22059-60-5
Molecular Formula:	$C_{21}H_{32}N_3O_5P$
Molecular Weight:	437.47
Target:	Potassium Channel; Sodium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Disopyramide phosphate is a class IA antiarrhythmic agent with efficacy in ventricular and atrial arrhythmias. Disopyramide phosphate blocks the fast inward sodium current of cardiac muscle and prolongs the duration of cardiac action potentials. Disopyramide phosphate inhibits HERG encoded potassium channels. Disopyramide phosphate also exhibits complex protein binding, and has a potent negative inotropic action[1][2][3].
In Vitro	HERG tail currents recorded at -40 mV following test pulses to +30 mV were inhibited in a dose-dependent fashion by Disopyramide concentrations within the clinical range (IC_{50}=7.23 μM)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Med Chem. 2021 Mar 11;64(5):2725-2738.

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REFERENCES

[1]. S V Jones, et al. Non-competitive Effects of Disopyramide at the Neuromuscular Junction: Evidence for Endplate Ion Channel Block. Br J Anaesth. 1987 Jun;59(6):776-83.

[2]. L A Siddoway, et al. Clinical Pharmacokinetics of Disopyramide. Clin Pharmacokinet. May-Jun 1986;11(3):214-22.

[3]. A A Paul, et al. Inhibition of HERG Potassium Channel Current by the Class 1a Antiarrhythmic Agent Disopyramide. Biochem Biophys Res Commun. 2001 Feb 9;280(5):1243-50.

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

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