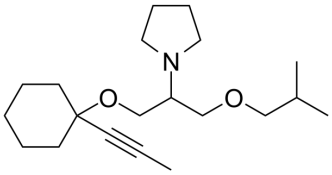
Dopropidil

Cat. No.:	HY-U00151
CAS No.:	79700-61-1
Molecular Formula:	$C_{20}H_{35}NO_2$
Molecular Weight:	321.5
Target:	Calcium Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Dopropidil is a novel anti-anginal calcium ion modulating agent, possessing intracellular calcium antagonist activity andanti-ischemic effects in several predictive animal models.
IC_{50} & Target	Calcium[1]
In Vitro	Dopropidil is able to inhibit caffeine-induced contractions of rabbit renal arteries in a calcium-free medium (IC_{50}=30.0 uM). Dopropidil inhibits norepinephnne (NE)-induced responses with IC_{50}s of 2.7 and 29.8 uM, respectively. At 3 and 10 μM, Dopropidil significantly reduces the maximum increase in diastolic tension evoked by veratrine (IC_{50}=2.8 μM)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Dopropidil (1 and 2.5 mg/kg) dose-dependently reduces the electrical (ST segment elevation), biochemical (lactate production and potassium release), and mechanical (loss in myocardial segment contractility) perturbations induced by ischemia in the anesthetized dog. Intraduodenal administration of Dopropidil (50 mg/kg) significantly reduces isoproterenol-induced tachycardia. This effect is manifest at 15-120 min following administration of the compound which indicates a rapid absorption and a long duration of action. In conscious dogs Dopropidil (12-14 mg/kg p.o.) reduces resting heart rate by approximately10 beats/min[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration [1]	Rabbits[1] Groups of rabbits given a normal diet or one containing Cholesterol (1 %) are treated with vehicle, Diltiazem (10 mg/kg per day,p.o.), or Dopropidil (30 mg/kg per day, p.o.) over a 14-week period. Animals are then killed and certain blood vessels examined macroscopically, microscopically, and pharmacologically for reactivity to certain vasoactive agents. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. J. Planellas, et al. Dopropidil, A Novel Antianginal Calcium Modulating Agent. Cardiovascular Drug Reviews. Vol.12, No.3, pp. 208-224.

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

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