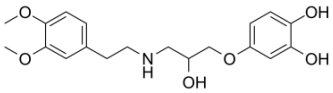
Ro 363

Cat. No.:	HY-123268
CAS No.:	74513-77-2
Molecular Formula:	$C_{19}H_{25}NO_6$
Molecular Weight:	363.4
Target:	Adrenergic Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Ro 363 is a potent and highly selective β1-adrenoceptor agonist. RO 363 is an effective inotropic stimulant, and is a cardiovascular modulator that reduces diastolic blood pressure and pronounces increases in myocardial contractility[1][2][3] .
IC_{50} & Target	β1-adrenoceptor[1]
In Vitro	Isolated perfused heart preparations from guinea-pigs developed arrhythmic contractions following the administration of Ro 363 in doses producing 70-100% of its maximal chronotropic responses[1]. RO 363 is approximately half as potent as (-)-Isoprenaline in tissues where actions are due to β1-receptor activation (guinea-pig atrial and ileal preparations and ventricular strips from the rabbit, rat and guinea-pig[2]. In spontaneously contracted tracheal preparations from the guinea-pig, RO 363 is a full agonist and is approximately half as potent as (-)-Isoprenaline. These effects of RO 363 are due to the activation of a population of β1-receptors in the tissue since RO 363 and (-)-Isoprenaline have the same relative potencies in trachea, cardiac and ileal preparations[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	In chloralose-anaesthetized cats, Ro 363, when compared to epinephrine (adrenaline), is essentially devoid of arrhythmogenic activity in animals in which cardiac sensitization is induced by U-0882 or halothane[1]. Ro 363 elicits ventricular arrhythmias following the administration of subarrhythmic doses of ouabain and increases the number of subauricular escape beats which occurred during vagal nerve stimulation in non-ouabain treated animals[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Maccarrone C, et al. Comparison of the Arrhythmogenic Actions of (-)-Isoprenaline, Dobutamine and the selective beta 1-adrenoceptor agonist, (+/-)-(1-[3',4'-dihydroxyphenoxy] -2-hydroxy-[3",4"-dimethoxy phenethylamino]-propane)-oxalate (Ro 363). Arzneimittelforschung. 1985;35(3):592-8.

[2]. Iakovidis D, et al. In vitro activity of RO363, a beta1-adrenoceptor selective agonist. Br J Pharmacol. 1980 Apr;68(4):677-85.

[3]. Einstein R, et al. Comparison of the cardiac effects of beta-adrenoreceptor agonists in anaesthetised and conscious dogs. J Auton Pharmacol. 1986 Mar;6(1):9-14.