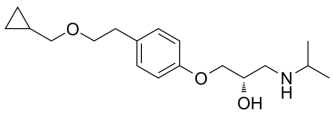
Levobetaxolol

Cat. No.:	HY-121166
CAS No.:	93221-48-8
Molecular Formula:	$C_{18}H_{29}NO_3$
Molecular Weight:	307.43
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	Levobetaxolol is a potent and high affinity β-adrenergic antagonist with IC_{50} values of 33.2, 2970, 709 nM for guinea pig atrial β1, tracheal β2 and rat colonic β3 receptors, respectively. Levobetaxolol reduces IOP (intraocular pressure). Levobetaxolol exhibits a micromolar affinity for L-type Ca21-channels. Levobetaxolol decreases the effects of ischaemia/reperfusion injury in rats. Levobetaxolol has the potential for the research of glaucoma[1][2].		
IC_{50} & Target	β1 adrenoceptor 33.2 nM (IC_{50})	β2 adrenoceptor 2970 nM (IC_{50})	β3 adrenoceptor 709 nM (IC_{50})
In Vitro	Levobetaxolol shows a higher affinity at cloned human β1 and β2 receptor with K_i values of 0.76, 32.6 nM, respectively[1]. Levobetaxolol inhibits functional activities in cells expressing human recombinant β1 and β2 receptors with K_b values of 6, 39 nM, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

REFERENCES

[1]. Sharif NA, et al. Levobetaxolol (Betaxon) and other beta-adrenergic antagonists: preclinical pharmacology, IOP-lowering activity and sites of action in human eyes. J Ocul Pharmacol Ther. 2001 Aug;17(4):305-17.

[2]. Osborne NN, et al. Effectiveness of levobetaxolol and timolol at blunting retinal ischaemia is related to their calcium and sodium blocking activities: relevance to glaucoma. Brain Res Bull. 2004 Feb 15;62(6):525-8.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA