Oxprenolol

Cat. No.: HY-B1486A

CAS No.: 6452-71-7

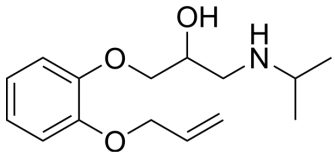
Molecular Formula: $C_{15}H_{23}NO_3$

Molecular Weight: 265.35

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	Oxprenolol (Ba 39089 free base) is an orally bioavailable β-adrenergic receptor (β-AR) antagonist with a K_i of 7.10 nM in a radioligand binding assay using rat heart muscle[1].
IC_{50} & Target	β-adrenoceptor 7.1 nM (Ki)
In Vitro	Oxprenolol is lipophilic[3]. Oxprenolol shows permeability rate constant of 1.54 ± 1.54×10^{-3} cm/h across abdominal human skin[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Oxprenolol (200 mg/kg/day; p.o.; daily for 3 weeks) produces effective beta-blockade together with peak plasma drug levels within the normal clinical range[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male rats (230 to 300 g body wt) of the Wistar strain[2]
Dosage:	200 mg/kg
Administration:	Administered orally; daily for 3 weeks
Result:	This dosage produced effective beta-blockade.

CUSTOMER VALIDATION

- J Pharmaceut Biomed. 2020, 113870.

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REFERENCES

[1]. Modamio P, et al. A comparative in vitro study of percutaneous penetration of β-blockers in human skin. International journal of pharmaceutics, 2000, 194(2): 249-259.

[2]. T Nagatomo, et al. Binding Characteristics of ^{3}H-dihydroalprenolol to Beta-Adrenoceptors of Rat Heart Treated With Neuraminidase. Jpn J Pharmacol. 1983 Aug;33(4):851-7.

[3]. A S Manning, et al. Abrupt Withdrawal of Chronic Beta-Blockade: Adaptive Changes in Cyclic AMP and Contractility. J Mol Cell Cardiol. 1981 Nov;13(11):999-1009.

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