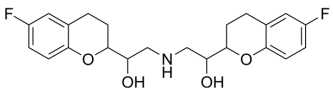
(Rac)-Nebivolol

Cat. No.:	HY-B0203B
CAS No.:	99200-09-6
Molecular Formula:	$C_{22}H_{25}F_2NO_4$
Molecular Weight:	405.44
Target:	Adrenergic Receptor; NADPH Oxidase
Pathway:	GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	(Rac)-Nebivolol ((Rac)-R 065824) is a racemic isomer of Nebivolol. Nebivolol is a selective β1-adrenergic receptor antagonist with an IC_{50} value of 0.8 nM. Nebivolol can prevent up-regulation of Nox2/NADPH oxidase and lipoperoxidation in the early stages of ethanol-induced cardiac toxicity. Vasodilatory activity[1][2].
IC_{50} & Target	NOX2
In Vivo	Nebivolol (10 mg/kg; daily for 7 days) markedly improves endothelial dysfunction and increases P-VASP levels; prevents NOS III uncoupling; significantly inhibit NADPH oxidase in Angiotensin II-treated rats[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. do Vale GT, et al. Nebivolol Prevents Up-Regulation of Nox2/NADPH Oxidase and Lipoperoxidation in the Early Stages of Ethanol-Induced Cardiac Toxicity. Cardiovasc Toxicol. 2021 Mar;21(3):224-235.

[2]. Cockcroft JR, et al. Nebivolol vasodilates human forearm vasculature: evidence for an L-arginine/NO-dependent mechanism. J Pharmacol Exp Ther. 1995 Sep;274(3):1067-71.

[3]. Oelze M, et al. Nebivolol inhibits superoxide formation by NADPH oxidase and endothelial dysfunction in angiotensin II-treated rats. Hypertension. 2006 Oct;48(4):677-84.

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