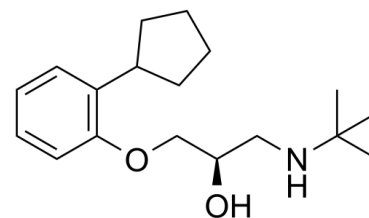


Data Sheet

Product Name:	(+)-Penbutolol
Cat. No.:	CS-0082785
CAS No.:	38363-41-6
Molecular Formula:	C ₁₈ H ₂₉ NO ₂
Molecular Weight:	291.43
Target:	Adrenergic Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Solubility:	10 mM in DMSO



BIOLOGICAL ACTIVITY:

(+)-Penbutolol is a β -adrenoceptor antagonist, with an IC_{50} of $0.74 \mu M$ ^[1]. (+)-Penbutolol is an optical isomer of l-penbutolol with Na⁺ channel-blocking action^[2]. IC_{50} & Target: IC_{50} : $0.74 \mu M$ (β -adrenoceptor)^[1]. **In Vitro:** (+)-penbutolol on the $[Ca^{2+}]_i$ -increase induced by LPC is concentration-dependent^[1].

(+)-penbutolol inhibits the rounding of cells dose dependently ($8 \pm 4\%$, $56 \pm 4\%$ and $66 \pm 2\%$ at the concentrations of $10^{-6} M$, $5 \times 10^{-6} M$ and $10^{-5} M$, respectively)^[2].

References:

[1]. Chen M, et al. Effects of beta-adrenoceptor antagonists on Ca(2+)-overload induced by lysophosphatidylcholine in rat isolated cardiomyocytes. Br J Pharmacol. 1996 Jun;118(4):865-70.

[2]. Hashizume H, et al. Effects of antiischemic drugs on veratridine-induced hypercontracture in rat cardiac myocytes. Eur J Pharmacol. 1994 Dec 12;271(1):1-8.

CAIndexNames:

2-Propanol, 1-(2-cyclopentylphenoxy)-3-[(1,1-dimethylethyl)amino]-, (2R)-

SMILES:

O[C@@H](COC1=CC=CC=C1C2CCCC2)CNC(C)C

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

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