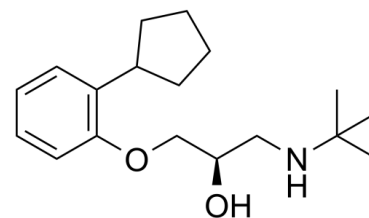


## Data Sheet

|                           |   |
|---------------------------|---|
| <b>Product Name:</b>      | (+)-Penbutolol                                  |
| <b>Cat. No.:</b>          | CS-0082785                                      |
| <b>CAS No.:</b>           | 38363-41-6                                      |
| <b>Molecular Formula:</b> | C <sub>18</sub> H <sub>29</sub> NO <sub>2</sub> |
| <b>Molecular Weight:</b>  | 291.43  |
| <b>Target:</b>            | Adrenergic Receptor                             |
| <b>Pathway:</b>           | GPCR/G Protein; Neuronal Signaling              |
| <b>Solubility:</b>        | DMSO : 100 mg/mL (343.14 mM; Need ultrasonic)   |



### BIOLOGICAL ACTIVITY:

(+)-Penbutolol is a  $\beta$ -adrenoceptor antagonist, with an IC<sub>50</sub> of 0.74  $\mu$ M<sup>[1]</sup>. (+)-Penbutolol is an optical isomer of l-penbutolol with Na<sup>+</sup> channel-blocking action<sup>[2]</sup>. IC<sub>50</sub> & Target: IC<sub>50</sub>: 0.74  $\mu$ M ( $\beta$ -adrenoceptor)<sup>[1]</sup>. **In Vitro:** (+)-penbutolol on the [Ca<sup>2+</sup>]<sub>i</sub>-increase induced by LPC is concentration-dependent<sup>[1]</sup>.

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

### 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)C

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

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