(R)-(+)-Atenolol

Cat. No.: HY-B2111

CAS No.: 56715-13-0

Molecular Formula: $C_{14}H_{22}N_2O_3$

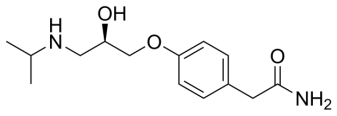
Molecular Weight: 266.34

Target: Adrenergic Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (375.46 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.7546 mL	18.7730 mL	37.5460 mL
	5 mM	0.7509 mL	3.7546 mL	7.5092 mL
	10 mM	0.3755 mL	1.8773 mL	3.7546 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (9.39 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.39 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.39 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(R)-(+)-Atenolol is the less active enantiomer of the (R,S)-atenolol. (R,S)-atenolol is a β-adrenergic receptor antagonist[1][2].

IC_{50} & Target

β adrenergic receptor

REFERENCES

[1]. Batra S, et al. Bioassay, determination and separation of enantiomers of atenolol by direct and indirect approaches using liquid chromatography: A review. Biomed Chromatogr. 2018 Jan;32(1).

[2]. Stoschitzky K, et al. Stereoselective features of (R)- and (S)-atenolol: clinical pharmacological, pharmacokinetic, and radioligand binding studies. Chirality. 1993;5(1):15-9.

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