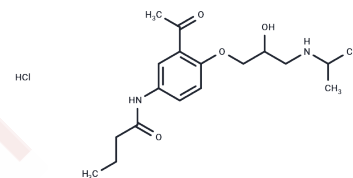


Acebutolol hydrochloride

Chemical Properties

CAS No. :	34381-68-5
Formula:	C ₁₈ H ₂₉ ClN ₂ O ₄
Molecular Weight:	372.89
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Acebutolol hydrochloride (Acebutolol HCl) acts as a cardioselective beta-adrenergic antagonist with little effect on bronchial receptors and has intrinsic sympathomimetic properties. Acebutolol hydrochloride is the hydrochloride salt form of acebutolol, a synthetic butyranilide derivative with hypotensive and antiarrhythmic activity. Having stabilizing and quinidine-like effects on cardiac rhythm, Acebutolol hydrochloride is used in ventricular arrhythmias. Other indications include hypertension, alone or in combinations with other agents.
Targets(IC50)	Adrenergic Receptor
In vitro	In J774 macrophages, Acebutolol (not bound to LDL) inhibited intracellular cholesteryl ester accumulation more strongly than oxenolol (bound to LDL) and Alprenolol. Acebutolol inhibited the uptake of NA by rat brain P2 fragments (IC ₅₀ : 0.25 mM). CYP (125I-labeled) binds to human adipocyte membranes. The binding of CYP (125I-labeled) to human adipocyte membranes was inhibited by Acebutolol, and it replaced all specifically bound radioligands. 1 μM isoproterenol-induced lipolysis was completely inhibited by Acebutolol.
In vivo	In J774 macrophages, Acebutolol (not bound to LDL) inhibited intracellular cholesteryl ester accumulation more strongly than oxenolol (bound to LDL) and Alprenolol. Acebutolol inhibited the uptake of NA by rat brain P2 fragments (IC ₅₀ : 0.25 mM). CYP (125I-labeled) binds to human adipocyte membranes. The binding of CYP (125I-labeled) to human adipocyte membranes was inhibited by Acebutolol, and it replaced all specifically bound radioligands. 1 μM isoproterenol-induced lipolysis was completely inhibited by Acebutolol.

Solubility Information

Solubility	Ethanol: 70 mg/mL (187.72 mM), Sonication is recommended. H ₂ O: 69 mg/mL (185.04 mM), Sonication is recommended. DMSO: 250 mg/mL (670.44 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.36 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and</i>

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In vivo Formulation	<i>used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6818 mL	13.4088 mL	26.8176 mL
5 mM	0.5364 mL	2.6818 mL	5.3635 mL
10 mM	0.2682 mL	1.3409 mL	2.6818 mL
50 mM	0.0536 mL	0.2682 mL	0.5364 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Street JA, et al. Eur J Pharmacol, 1984, 102(2), 315-324.

Mauriège P, et al. J Lipid Res, 1988, 29(5), 587-60

Seifert T, et al. Chem Phys Lipids, 1997, 85(1), 13-21.

Piquette-Miller M, et al. Biopharm Drug Dispos, 1997, 18(6), 543-556.

Mostafavi S, et al. Biopharm Drug Dispos, 2000, 21(4), 121-128.

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