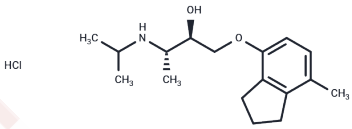
Data Sheet (Cat.No.T11607)

TargetMol

ICI 118,551 hydrochloride

Chemical Properties



CAS No. :	72795-01-8
Formula:	C17H28ClNO2
Molecular Weight:	313.86
Storage:	Store at low temperature Powder: -20°C for 3 years | In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	ICI 118,551 hydrochloride (ICI 118551 hydrochloride) is a highly selective β2 adrenergic receptor antagonist (Kis: 0.7, 49.5, and 611 nM for β2, β1, and β3 receptors).
Targets(IC50)	Adrenergic Receptor
In vitro	ICI 118551 (10 μM) induces a prominent vasorelaxation of norepinephrine (NE)-precontracted PA but not AO [2]. ICI 118551 inhibits cAMP accumulation in IMCD cells (IC50: 1.7 μM) [1]. In the failing human heart, ICI 118551 has significant effects on beat duration, with time-to-peak contraction and time-to-90% relaxation reduced compared with basal contraction. Negative Inotropic Effect of ICI 118551 Is Not cAMP-Related. Overexpression of β2AR in rabbit myocytes enhances the negative inotropic effects of ICI 118551 [3].
In vivo	ICI 118551 (0.2 mg/kg) injected into the jugular vein of the mice, strongly reduces systolic pressure in the pulmonary circuit but not systemic arterial pressure in vivo[2].

Solubility Information

Solubility	DMSO: 20 mg/mL (63.72 mM),Sonication is recommended. H2O: 11.11 mg/mL (35.4 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 (6.37 mM),Sonication is recommended. *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 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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1861 mL	15.9307 mL	31.8613 mL
5 mM	0.6372 mL	3.1861 mL	6.3723 mL
10 mM	0.3186 mL	1.5931 mL	3.1861 mL
50 mM	0.0637 mL	0.3186 mL	0.6372 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

Yasuda G, et al. The beta 1- and beta 2-adrenoceptor subtypes in cultured rat inner medullary collecting duct cells. Am J Physiol. 1996 Sep;271(3 Pt 2):F762-9.
Wenzel D, et al. beta(2)-adrenoceptor antagonist ICI 118,551 decreases pulmonary vascular tone in mice via a G (i/o) protein/nitric oxide-coupled pathway. Hypertension. 2009 Jul;54(1):157-63.
Gong H, et al. Specific beta(2)AR blocker ICI 118,551 actively decreases contraction through a G(i)-coupled form of the beta(2)AR in myocytes from failing human heart. Circulation. 2002 May 28;105(21):2497-503.
Hoffmann C, et al. Comparative pharmacology of human beta-adrenergic receptor subtypes--characterization of stably transfected receptors in CHO cells. Naunyn Schmiedebergs Arch Pharmacol. 2004 Feb;369(2):151-9.

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