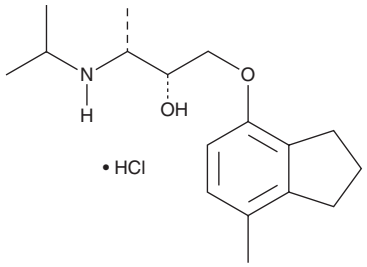
PRODUCT INFORMATION

ICI 118551 (hydrochloride)

Item No. 15591

CAS Registry No.: 72795-01-8
Formal Name: (2R,3R)-*rel*-1-[(2,3-dihydro-7-methyl-1H-inden-4-yl)oxy]-3-[(1-methylethyl)amino]-2-butanol, monohydrochloride
MF: $C_{17}H_{27}NO_2$ • HCl
FW: 313.9
Purity: ≥99%
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ICI 118551 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the ICI 118551 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. ICI 118551 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ICI 118551 (hydrochloride) in these solvents is approximately 2, 3, and 5 mg/ml, respectively.

ICI 118551 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ICI 118551 (hydrochloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ICI 118551 (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ICI 118551 is a potent, selective antagonist of the β_2-adrenergic receptor (K_i = 0.7 nM for the β_2 receptor, compared with 49.5 and 611 nM for β_1 and β_3 receptors, respectively).[1,2] It is active *in vivo* and is often used to evaluate the actions of adrenergic receptor agonists.[3-5]

References

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2. Baker, J.G. The selectivity of β-adrenoceptor antagonists at the human β_1, β_2 and β_3 adrenoceptors. *Br. J. Pharmacol.* **144(3)**, 317-322 (2005).
3. Deighton, N.M., Motomura, A., Bals, S., *et al.* Characterization of the beta adrenoceptor subtype(s) mediating the positive inotropic effects of epinine, dopamine, dobutamine, denopamine and xamoterol in isolated human right atrium. *J. Pharmacol. Exp. Ther.* **262(2)**, 532-538 (1992).
4. Rothwell, N.J., Stock, M.J., and Sudera, D.K. Changes in tissue blood flow and β-receptor density of skeletal muscle in rats treated with the β_2-adrenoceptor agonist clenbuterol. *Br. J. Pharmacol.* **90(3)**, 601-607 (1987).
5. Kim, I.M., Tilley, D.G., Chen, J., *et al.* β-blockers alprenolol and carvedilol stimulate β-arrestin-mediated EGFR transactivation. *Proc. Natl. Acad. Sci. USA* **105(38)**, 14555-14560 (2008).

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