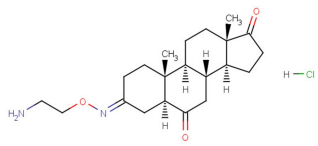
Data Sheet (Cat.No.T15599)

TargetMol
A DRUG SCREENING EXPERT

Istaroxime hydrochloride

Chemical Properties



CAS No.:	374559-48-5
Formula:	C21H33ClN2O3
Molecular Weight:	396.95
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Istaroxime hydrochloride is an inhibitor of Na+/K+-ATPase (IC50: 0.11 μM). It also is a sarcoplasmic/endoplasmic reticulum calcium ATPase 2 (SERCA 2) activator.
Targets(IC_{50})	Na+,K+-ATPase: 0.11 μM
In vitro	Istaroxime inhibits the Na+/K+-ATPase activity from dog kidney (IC50: 0.43 ± 0.15 μM). Istaroxime hydrochloride acting as a positive inotropic compound through the inhibition of the Na+,K+-ATPase [2]. Inhibition of Na+/K+-ATPase activity in preparations from guinea pig kidney yielded potencies of 8.5 μM for Istaroxime (PST2744) [3].
In vivo	Istaroxime causes a progressive to enhance in +dP/dtmax throughout the infusion. That reaches 80% (ED80) at the cumulative dose of 1.89±0.37 mg/kg and a peak of 140±3.5% at the dose (EDmax) of 4.88±0.6 mg/kg [3].

Solubility Information

Solubility	DMSO: 45 mg/mL (113.36 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.519 mL	12.596 mL	25.192 mL
5 mM	0.504 mL	2.519 mL	5.038 mL
10 mM	0.252 mL	1.26 mL	2.519 mL
50 mM	0.05 mL	0.252 mL	0.504 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Gobbini M, et al. Novel analogues of istaroxime, a potent inhibitor of Na+,K+-ATPase: synthesis and structure-activity relationship. J Med Chem. 2008 Aug 14;51(15):4601-8.

2. Gobbini M, et al. Novel analogues of Istaroxime, a potent inhibitor of Na(+),K(+)-ATPase: Synthesis, structure-activity relationship and 3D-quantitative structure-activity relationship of derivatives at position 6 on the androstane scaffold. Bioorg Med Ch

3. Micheletti R, et al. Pharmacological profile of the novel inotropic agent (E,Z)-3-((2-aminoethoxy)imino)androstane-6,17-dione hydrochloride (PST2744). J Pharmacol Exp Ther. 2002 Nov;303(2):592-600.

Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481