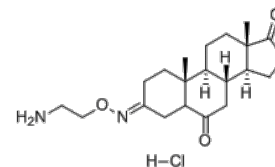


Product Name : Istaroxime hydrochloride
Cat. No. : PC-49732
CAS No. : 374559-48-5
Molecular Formula : C₂₁H₃₃ClN₂O₃
Molecular Weight : 396.96
Target : Calcium Channel
Solubility : 10 mM in DMSO



Biological Activity

Istaroxime (PST2744) hydrochloride is an inotropic agent and **Na(+)/K(+)-ATPase** inhibitor, inhibits dog kidney Na(+)/K(+)-ATPase with IC₅₀ of 0.43 uM, also stimulates **SERCA2a**.

Istaroxime (0.2 mg/kg/min) exerted an immediate and long-lasting inotropic effect (ED₈₀) of 1.89 mg/kg) without causing lethal arrhythmias in anesthetized guinea pigs.

Istaroxime significantly increased resting values of +dP/dt(max), left ventricular pressure, and SPB, and increased +dP/dt(max) throughout treadmill exercise in conscious dogs with a healed myocardial infarction.

Istaroxime (100 nmol/L) normalized the depressed (-32%) SERCA2a maximum velocity and increased SERCA activity (+17%) in left ventricular sarcoplasmic reticulum microsomes from AoB animals.

Istaroxime stimulates SERCA2a and accelerates calcium cycling in heart failure by relieving phospholamban inhibition.

Istaroxime combines Na⁺-K⁺-ATPase (NKA) inhibition with sarco/endoplasmic reticulum Ca²⁺-ATPase 2a (SERCA2a) stimulation.

References

Micheletti R, et al. *Am J Cardiol*. 2007 Jan 22;99(2A):24A-32A.

Ferrandi M, et al. *Br J Pharmacol*. 2013 Aug;169(8):1849-61.

Wallner M, et al. *Oncotarget*. 2017 Jul 25;8(30):49264-49274.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

E-mail: tech@probechem.com