Web: www.taiclone.com
Tel: +886-2-2735-9682
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Rostafuroxin

Catalog No: tcsc3295

Available Sizes

Size: 10mg

Size: 50mg

Specifications

CAS No:
156722-18-8

Formula:
$C_{23}H_{34}O_4$

Pathway:
Membrane Transporter/Ion Channel

Target:
Na+/K+ ATPase

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 50 mg/mL (133.51 mM)

Alternative Names:
PST 2238

Observed Molecular Weight:
374.51

Product Description

Rostafuroxin(PST 2238) is a antihypertensive compound; Na,K-ATPase antognist;displaced [3H]ouabain from the dogkidney Na+,K+-ATPase with IC50 of 1.5 nM.

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IC50 value: 1.5 nM [1]

Target: Na+,K+-ATPase modulator; ouabain antagonist

in vitro: PST 2238 displaced [3H]ouabain from the dog kidney Na+,K+-ATPase receptor (IC50) 1.5X 10-6M), was devoid of cardiac inotropic activity in isolated guinea pig atria, and showed no affinity up to 10-4 M with general (R1, R2, a1, a2, A1, A2, M1, M2, H1, H2, 5-HT1, 5-HT2, Ca2+ channels, TXA2/PGH2, PAF, GABAA, GABAB, DA-NE-5-HT uptake, glutammate,glycine, benzodiazepine) and hormonal (estrogenic, progestinic, androgenic, mineralcorticoid) receptors [1]. At molecular level, in the kidney, Rostafuroxin antagonizes EO triggering of the Src-epidermal growth factor receptor (EGFr)-dependent signaling pathway leading to renal Na+-K+ pump, and ERK tyrosine phosphorylation and activation [3].

in vivo: PST 2238, given orally at very low doses (1 and 10 microg/kg for 5-6 weeks), reduced the development of hypertension in MHS rats and normalized the increased renal Na,K-ATPase activity and mRNA levels, whereas it did not affect either blood pressure or Na,K-ATPase in Milan-normotensive (MNS) rats [2].