

# 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<sup>+</sup>/K<sup>+</sup> ATPase

**Purity / Grade:**

>98%

**Solubility:**

DMSO : ≥ 50 mg/mL (133.51 mM)

**Alternative Names:**

PST 2238

**Observed Molecular Weight:**

374.51

## Product Description

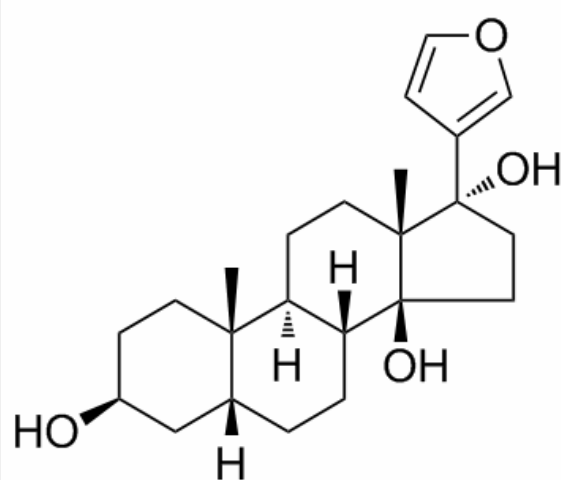
Rostafuroxin(PST 2238) is a antihypertensive compound; Na,K-ATPase antognist;displaced [3H]ouabain from the dogkidney Na<sup>+</sup>,K<sup>+</sup>-ATPase with IC50 of 1.5 nM.

IC50 value: 1.5 nM [1]

Target: Na<sup>+</sup>,K<sup>+</sup>-ATPase modulator; ouabain antagonist

in vitro: PST 2238 displaced [3H]ouabain from the dog kidney Na<sup>+</sup>,K<sup>+</sup>-ATPase receptor (IC50 ) 1.5X 10<sup>-6</sup>M), was devoid of cardiac inotropic activity in isolated guinea pig atria, and showed no affinity up to 10<sup>-4</sup> M with general (R1, R2, α1, α2, A1, A2, M1, M2, H1, H2, 5-HT1, 5-HT2, Ca<sup>2+</sup> channels, TXA2/PGH2, PAF, GABAA, GABAB, DA-NE-5-HT uptake, glutamate, 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<sup>+</sup>-K<sup>+</sup> 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].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!