Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

FR183998 free base

Catalog No: tcsc0018454

Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg

Specifications

CAS No:
239440-20-1

Formula:
$C_{17}H_{19}Cl_2N_5O_2S$

Pathway:
Membrane Transporter/Ion Channel

Target:
Sodium Channel

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Observed Molecular Weight:
428.34

Product Description

FR183998 free base is a potent **Na^+/H^+-exchange** inhibitor, with **IC_{50}**s of 0.3 nM, 3.1 nM and 6.5 nM by measurement of pH_i change in rat lymphocytes, rat and human platelets, respectively.

Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

IC50 & Target: IC50: 0.3 nM (Na^+/H^+-exchange, Rat lymphocytes), 3.1 nM (Na^+/H^+-exchange, Human platelet), 6.5 nM (Na^+/H^+-exchange, Rat platelet)[1]

In Vitro: FR183998 free base is a Na^+/H^+-exchange inhibitor, with IC_{50}s of 0.3 nM, 6.5 nM and 3.1 nM by measurement of pH_i change in rat lymphocytes, rat and human platelets, respectively[1].

In Vivo: FR183998 (0.1 and 1.0 mg/kg, i.v.) shows no effect hemodynamic parameters, and does not affect mean blood pressure and heart rate in conscious rats. Pretreatment of 0.01, 0.032, 0.10 mg/kg FR183998 or posttreament of 0.032 and 0.10 mg/kg FR183998 via intravenous administration, dose-dependently reuces reperfusion-induced ventricular fibrillation (VF) and mortality in reperfusion-induced arrhythmias in anesthetized rats, with ED_{50}s against VF of 0.015 mg/kg and 0.070 mg/kg, respectively. FR183998 also reduces myocardial infarct sizes, and suppresses the arrhythmias in anesthetized rats[1]. FR183998 (1 mg/kg, i.v.) reduces the increase in serum levels of alanine transaminase, aspartate transaminase, and lactate dehydrogenase induced by hepatic I/R, and prevents the incidences of hepatic necrosis, apoptosis, and neutrophil infiltration. FR183998 blocks the I/R-induced activation of the NF-κB, reduces induction of iNOS and inhibits the production of nitric oxide. FR183998 also decreases the expression of the iNOS gene antisense transcript in the liver of hepatic I/R rats[2].