

# 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

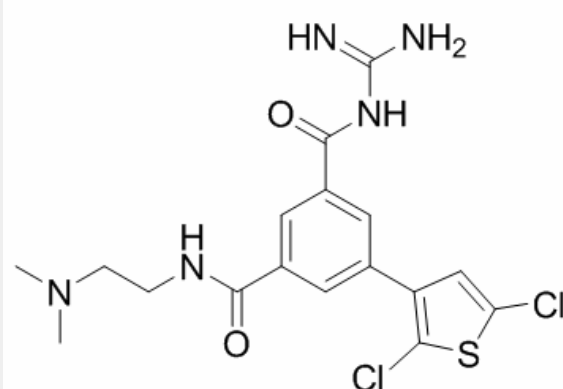
## Product Description

FR183998 free base is a potent **Na<sup>+</sup>/H<sup>+</sup>-exchange** inhibitor, with **IC<sub>50</sub>**s of 0.3 nM, 3.1 nM and 6.5 nM by measurement of pH<sub>i</sub> change in rat lymphocytes, rat and human platelets, respectively.

IC<sub>50</sub> & Target: IC<sub>50</sub>: 0.3 nM (Na<sup>+</sup>/H<sup>+</sup>-exchange, Rat lymphocytes), 3.1 nM (Na<sup>+</sup>/H<sup>+</sup>-exchange, Human platelet), 6.5 nM (Na<sup>+</sup>/H<sup>+</sup>-exchange, Rat platelet)<sup>[1]</sup>

**In Vitro:** FR183998 free base is a Na<sup>+</sup>/H<sup>+</sup>-exchange inhibitor, with IC<sub>50</sub>s of 0.3 nM, 6.5 nM and 3.1 nM by measurement of pH<sub>i</sub> change in rat lymphocytes, rat and human platelets, respectively<sup>[1]</sup>.

**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 posttreatment of 0.032 and 0.10 mg/kg FR183998 via intravenous administration, dose-dependently reduces reperfusion-induced ventricular fibrillation (VF) and mortality in reperfusion-induced arrhythmias in anesthetized rats, with ED<sub>50</sub>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<sup>[1]</sup>. 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<sup>[2]</sup>.



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