



上海源叶生物科技有限公司
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产品名称: **FR183998 free base**

CAS 号: **239440-20-1**

产品货号: **S89449**

生物活性:					
Description	FR183998 free base 是一种有效的 Na+/H+-exchange 抑制剂, 通过测量在大鼠淋巴细胞、血小板及人血小板 pHi 值的变化中, 得到 IC50 值分别为 0.3 nM, 6.5 nM 和 3.1 nM。				
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 IC50s of 0.3 nM, 6.5 nM and 3.1 nM by measurement of pHi 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 posttreatment 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 ED50s 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- κ B, 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].				
Solvent&Solubility	细胞实验: DMSO 中的溶解度 : 250 mg/mL (583.65 mM); 超声助溶; 吸湿的 DMSO 对产品的溶解度有显著影响, 请使用新开封的 DMSO)				
		SolventMassConcentration	1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.3346 mL	11.6730 mL	23.3459 mL
		5 mM	0.4669 mL	2.3346 mL	4.6692 mL
		10 mM	0.2335 mL	1.1673 mL	2.3346 mL
*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液; 一旦配成溶液, 请分装保存, 避免反复冻融造成的产品失效。 储备液的保存方式和期限: -80°C, 6 months; -20°C, 1 month。-80°C 储存时, 请在 6 个月内使用, -20°C 储存时, 请在 1 个月内使用。					
参考文献	[1]. Ohara F, et al. Preischemic and postischemic treatment with a new Na+/H+-exchange inhibitor, FR183998, shows cardioprotective effects in rats with cardiac ischemia and reperfusion. J Cardiovasc Pharmacol. 1999 Dec;34(6):848-56. [2]. Ishizaki M, et al. Protective effect of FR183998, a Na+/H+ exchanger inhibitor, and its inhibition of iNOS induction in hepatic ischemia-reperfusion injury in rats. Shock. 2008 Sep;30(3):311-7.				
完整储备液配制表: 请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液; 一旦配成溶液, 请分装保存, 避免反复冻融造成的产品失效。 储备液的保存方式和期限: -80° C, 6 months; -20° C, 1 month。-80° C 储存时, 请在 6 个月内使用, -20° C 储存时, 请在 1 个月内使用。					



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可选溶剂	质量 溶剂体积 浓度	1 mg	5 mg	10 mg	25 mg
DMSO	1 mM	2.3346 mL	11.6730 mL	23.3459 mL	58.3649 mL
	5 mM	0.4669 mL	2.3346 mL	4.6692 mL	11.6730 mL
	10 mM	0.2335 mL	1.1673 mL	2.3346 mL	5.8365 mL
	15 mM	0.1556 mL	0.7782 mL	1.5564 mL	3.8910 mL
	20 mM	0.1167 mL	0.5836 mL	1.1673 mL	2.9182 mL
	25 mM	0.0934 mL	0.4669 mL	0.9338 mL	2.3346 mL
	30 mM	0.0778 mL	0.3891 mL	0.7782 mL	1.9455 mL
	40 mM	0.0584 mL	0.2918 mL	0.5836 mL	1.4591 mL
	50 mM	0.0467 mL	0.2335 mL	0.4669 mL	1.1673 mL
	60 mM	0.0389 mL	0.1945 mL	0.3891 mL	0.9727 mL
	80 mM	0.0292 mL	0.1459 mL	0.2918 mL	0.7296 mL
	100 mM	0.0233 mL	0.1167 mL	0.2335 mL	0.5836 mL

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