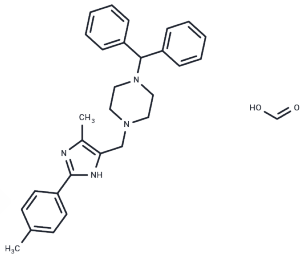
Data Sheet (Cat.No.T27830L)

TargetMol

Lifarizine FA

Chemical Properties



CAS No. :

Formula: C30H34N4O2

Molecular Weight: 482.62

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Lifarizine FA is a sodium channel blocker used in the treatment of neurological disorders and cardiovascular diseases, study of stroke.
Targets(IC50)	Sodium Channel
In vivo	Following the global ischaemic insult the rats were allowed to recover for 72 h before assessment of the damage, during which time one group of rats (n = 11) received 100 micrograms kg-1 lifarizine i.a. 5 min post-occlusion, 500 micrograms kg-1 lifarizine i.p. 15 min post-occlusion, and 500 micrograms kg-1 lifarizine i.p. twice daily for 72 h. A second group of rats (n = 12) was treated with appropriate volumes of vehicle (0.4 ml kg-1 i.a. and 2 ml kg-1 i.p.) at identical time points. The dosing regimen of lifarizine gave reduced damage in the hippocampal CA1 sub-field (4.1 +/- 0.3 to 2.8 +/- 0.6) and striatum (1.7 +/- 0.3 to 1.2 +/- 0.3) and significant neuroprotection in the anterior cortex (2.0 +/- 0.2 to 1.2 +/- 0.2; $p < 0.05$), thalamus (1.5 +/- 0.2 to 0.8 +/- 0.2; $p < 0.01$), posterior cortex (1.5 +/- 0.2 to 1.0 +/- 0.2; $p < 0.05$) and cerebellar brain stem (0.9 +/- 0.2 to 0.4 +/- 0.1; $p < 0.01$). The overall mean brain score was significantly reduced (from 1.5 +/- 0.1 to 0.9 +/- 0.2). These data show that the newly modified 2-vessel occlusion model produced a quantifiable level of ischaemic damage and that the novel agent lifarizine is neuroprotective in the model.[4]

Solubility Information

Solubility	DMSO: 55 mg/mL (113.96 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.072 mL	10.3601 mL	20.7202 mL
5 mM	0.4144 mL	2.072 mL	4.144 mL
10 mM	0.2072 mL	1.036 mL	2.072 mL
50 mM	0.0414 mL	0.2072 mL	0.4144 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

McGivern JG, et al. Actions of the novel neuroprotective agent, lifarizine (RS-87476), on voltage-dependent sodium currents in the neuroblastoma cell line, N1E-115. Br J Pharmacol. 1995;114(8):1738-1744.
Brown NA, et al. Block of human voltage-sensitive Na+ currents in differentiated SH-SY5Y cells by lifarizine. Br J Pharmacol. 1994;113(2):600-606.
Budd DC, et al. Inhibition by lifarizine of intracellular Ca2+ rises and glutamate exocytosis in depolarized rat cerebrocortical synaptosomes and cultured neurones. Br J Pharmacol. 1996;118(1):162-166.
McBean DE, et al. Neuroprotective efficacy of lifarizine (RS-87476) in a simplified rat survival model of 2 vessel occlusion. Br J Pharmacol. 1995;116(8):3093-3098.