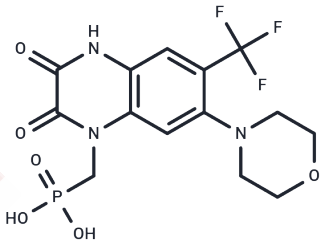
Data Sheet (Cat.No.T13405L)

TargetMol

Fanapanel

Chemical Properties



CAS No. : 161605-73-8

Formula: C14H15F3N3O6P

Molecular Weight: 409.25

Storage: Store at low temperature
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	Fanapanel (ZK200775) is a quinoxalinedione derivative and potent competitive antagonist of AMPAR for cerebrovascular-related studies.
Targets(IC50)	iGluR
In vitro	In rat cortical slice experiments, the inhibitory effect of Fanapanel on AMPA receptors was measured to assess its activity. The **Results** showed that the IC50 value for Fanapanel's inhibition of AMPA-induced currents was 21 nM, demonstrating strong neuroprotective and anticonvulsant effects [1].
In vivo	In the permanent MCAO model, intravenous infusion of Fanapanel (0.1-10 mg/kg/h for 6 hours) reduced the infarct volume by 24-34%, and it remained effective even when administered 1-5 hours later (reducing infarct volume by 20-30%). In the transient MCAO model, immediate or delayed injection of Fanapanel (0.01-3 mg/kg/h) 2 hours after reperfusion reduced the infarct volume by approximately 45%. In the gerbil global cerebral ischemia model, Fanapanel protected the hippocampal CA1 region. Long-term toxicity studies (rats 6 mg/kg/h, dogs 0.2 mg/kg/h for 4 weeks) did not show renal or neurotoxicity [1].

Solubility Information

Solubility	DMSO: 1 mg/mL (2.44 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4435 mL	12.2175 mL	24.4349 mL
5 mM	0.4887 mL	2.4435 mL	4.887 mL
10 mM	0.2443 mL	1.2217 mL	2.4435 mL
50 mM	0.0489 mL	0.2443 mL	0.4887 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

Turski L,et al.ZK200775: a phosphonate quinoxalinedione AMPA antagonist for neuroprotection in stroke and trauma.Proc Natl Acad Sci U S A.1998 Sep 1;95(18):10960-5.