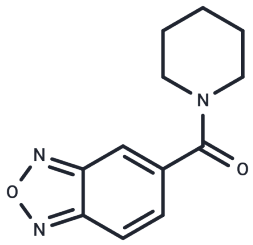
Data Sheet (Cat.No.T3957)

TargetMol

Farampator

Chemical Properties



CAS No. : 211735-76-1

Formula: C12H13N3O2

Molecular Weight: 231.25

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	Farampator (CX-691) (CX-691;Org24448) is a positive modulator of AMPA receptor.
Targets(IC50)	GluR,iGluR
In vitro	CX691 attenuates a scopolamine-induced impairment of cued fear conditioning following acute administration (0.1 mg/kg p.o.) and a temporally induced deficit in novel object recognition following both acute (0.1 and 1.0 mg/kg p.o.) and sub-chronic (bi-daily for 7 days) administration (0.01, 0.03, 0.1 mg/kg p.o.). It also improves attentional set-shifting following sub-chronic administration (0.3 mg/kg p.o.). Farampator (500 mg) unequivocally improves short-term memory but appeares to impair episodic memory. Furthermore, it tends to decrease the number of switching errors in the CTMT. Drug-induced side effects (SEs) included headache, somnolence and nausea. Subjects with SEs has significantly higher plasma levels of farampator than subjects without SEs. Farampator has potential in treating disorders characterised by cognitive deficits such as Alzheimer's disease and schizophrenia.
In vivo	Farampator holds promise for managing cognitive deficits associated with conditions like Alzheimer's disease and schizophrenia. It mitigates scopolamine-induced cued fear conditioning impairment with a single dose (0.1 mg/kg p.o.) and rectifies deficits in novel object recognition after both acute (0.1 and 1.0 mg/kg p.o.) and sub-chronic (twice daily for 7 days at doses of 0.01, 0.03, 0.1 mg/kg p.o.) administrations. Moreover, farampator enhances attentional set-shifting with sub-chronic use (0.3 mg/kg p.o.)[1]. Notably, at a 500 mg dosage, farampator consistently improves short-term memory, albeit with a tendency to impair episodic memory and reduces switching errors in the CTMT. Reported side effects (SEs) include headache, somnolence, and nausea, with subjects exhibiting SEs displaying significantly higher plasma levels of farampator compared to those without SEs[2].

Solubility Information

Solubility	DMSO: 50 mg/mL (216.22 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.65 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3243 mL	21.6216 mL	43.2432 mL
5 mM	0.8649 mL	4.3243 mL	8.6486 mL
10 mM	0.4324 mL	2.1622 mL	4.3243 mL
50 mM	0.0865 mL	0.4324 mL	0.8649 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

Woolley ML, et al. Evaluation of the pro-cognitive effects of the AMPA receptor positive modulator, 5-(1-piperidinylcarbonyl)-2,1,3-benzoxadiazole (CX691), in the rat. Psychopharmacology (Berl). 2009 Jan;202(1-3):343-54.

Wezenberg E, et al. Acute effects of the ampakine farampator on memory and information processing in healthy elderly volunteers. Neuropsychopharmacology. 2007 Jun;32(6):1272-83.