Farampator

Cat. No.: HY-10937

CAS No.: 211735-76-1

Molecular Formula: $C_{12}H_{13}N_3O_2$

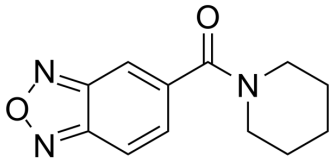
Molecular Weight: 231.25

Target: iGluR

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (432.43 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	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

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (10.81 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.81 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (10.81 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Farampator (CX-691;Org24448) is an AMPA receptor positive modulator.

In Vivo

Farampator has potential in treating disorders characterised by cognitive deficits such as Alzheimer's disease and schizophrenia. 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.)[1]. 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[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration [1]

Rats: Rats are dosed acutely with CX691 (0.1, 0.3 and 1.0; 2 ml/kg; p.o.) or vehicle (1% methylcellulose; 1 ml/kg; p.o.), and microdialysate samples are collected every 30 min for 4 h post dose. At the end of each experimental day, animals are returned to their home cage and re-used in a randomised cross-over design, allowing at least 7 days drug ishout before subsequent use. After the completion of the final microdialysis experiment, animals are killed, and brains are removed and stored in formalin solution for probe placement verification[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. 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.

[2]. 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.

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