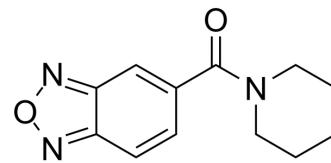


Farampator

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	Concentration	Solvent Mass		
		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: $\geq 2.5 \text{ mg/mL}$ (10.81 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- β -CD in saline)
Solubility: $\geq 2.5 \text{ mg/mL}$ (10.81 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: $\geq 2.5 \text{ mg/mL}$ (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 appears 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 have significantly higher plasma levels of farnapator 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 washout 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-benzodiazepine (CX691), in the rat. Psychopharmacology (Berl). 2009 Jan;202(1-3):343-54.
- [2]. Wezenberg E, et al. Acute effects of the ampakine farnapator on memory and information processing in healthy elderly volunteers. Neuropsychopharmacology. 2007 Jun;32(6):1272-83.

Caution: Product has not been fully validated for medical applications. For research use only.

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