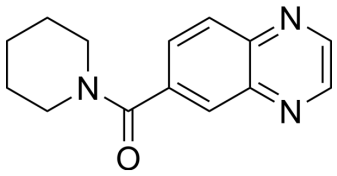
CX516

Cat. No.:	HY-10933
CAS No.:	154235-83-3
Molecular Formula:	$C_{14}H_{15}N_3O$
Molecular Weight:	241.29
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

H_2O : 100 mg/mL (414.44 mM; Need ultrasonic)
DMSO : ≥ 41 mg/mL (169.92 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.1444 mL	20.7220 mL	41.4439 mL
5 mM	0.8289 mL	4.1444 mL	8.2888 mL
10 mM	0.4144 mL	2.0722 mL	4.1444 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: ≥ 2.75 mg/mL (11.40 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.75 mg/mL (11.40 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.75 mg/mL (11.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CX516 (BDP 12) is an ampakine and acts as an AMPA receptor positive allosteric modulator for the research of Alzheimer's disease, schizophrenia and mild cognitive impairment (MCI)[1].

IC_{50} & Target

AMPA receptor[1]

In Vivo

The specific extradimensional deficits produced by sub-chronic or early postnatal postnatal phencyclidine treatment were significantly attenuated by CX516 (10, and 20 mg/kg, s.c.)[1].

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

Animal Model:	Male Lister Hooded rats (56-63 postnatal day)[1]
Dosage:	5, 10, 20, and 40 mg/kg
Administration:	Subcutaneously
Result:	Two doses (10 and 20 mg/kg) were highly significant in improving the extradimensional shift deficit induced by either treatment regimes. Two doses (5 and 40 mg/kg) was ineffective at reversing the extradimensional impairment induced by the sub-chronic postnatal phencyclidine treatment regime.

CUSTOMER VALIDATION

- Toxicol Appl Pharmacol. 2022 Feb 15;439:115924.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Broberg BV, Glenth?j BY, Dias R, et al. Reversal of cognitive deficits by an ampakine (CX516) and sertindole in two animal models of schizophrenia--sub-chronic and early postnatal PCP treatment in attentional set-shifting. Psychopharmacology (Berl). 2009 Nov;206(4):631-40.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA