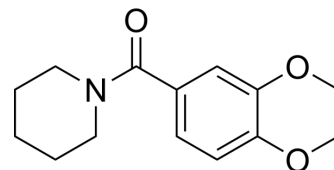


CX546

Cat. No.:	HY-12505		
CAS No.:	215923-54-9		
Molecular Formula:	C ₁₄ H ₁₇ NO ₃		
Molecular Weight:	247.29		
Target:	iGluR; Autophagy		
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling; Autophagy		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 100 mg/mL (404.38 mM; Need ultrasonic)
 DMSO : 100 mg/mL (404.38 mM; Need ultrasonic)
 H₂O : 2 mg/mL (8.09 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	4.0438 mL	20.2192 mL	40.4384 mL
	5 mM	0.8088 mL	4.0438 mL	8.0877 mL
	10 mM	0.4044 mL	2.0219 mL	4.0438 mL

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

In Vivo

- Add each solvent one by one: 20% HP-β-CD in saline
Solubility: 4 mg/mL (16.18 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (10.11 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (10.11 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (10.11 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (10.11 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (10.11 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (10.11 mM); Clear solution
- Add each solvent one by one: PBS

Solubility: 2 mg/mL (8.09 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

CX546 is a first-generation and selective benzamide-type positive AMPAR modulator. CX546 is a prototypical ampakine agent and has antipsychotic effects^{[1][2]}.

In Vivo

Treatment with the ampakine CX614 (intraperitoneal injection) markedly and reversibly increase brain-derived neurotrophic factor (BDNF) mRNA and protein levels in cultured rat entorhinal/hippocampal slices^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Neurobiol Dis. 2022 Jun 28;105807.
- Exp Neurol. 2018 Jun;304:41-57.

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REFERENCES

[1]. Lauterborn JC, et al. Positive modulation of AMPA receptors increases neurotrophin expression by hippocampal and cortical neurons. J Neurosci. 2000 Jan 1;20(1):8-21.

[2]. Lipina T, et al. The ampakine CX546 restores the prepulse inhibition and latent inhibition deficits in mGluR5-deficient mice. Neuropsychopharmacology. 2007 Apr;32(4):745-56.

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

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