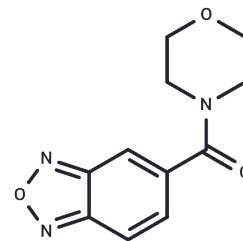


CX717

Chemical Properties

CAS No. : 867276-98-0
 Formula: C₁₁H₁₁N₃O₃
 Molecular Weight: 233.23
 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	CX 717 is a positive allosteric modulator of the AMPA receptor with antidepressant-like effects and potential use in adult attention deficit hyperactivity disorder (ADHD) research [1] [2].
Targets(IC50)	GluR,iGluR
In vivo	CX 717 (CX717; 20 mg/kg) exhibits a rapid (30 min) but short-lasting (up to 24 h) antidepressant-like effect in the forced swim test. It swiftly increases brain-derived neurotrophic factor (BDNF) within 1 hour and sustains elevated p11 levels for up to 6 hours [2]. When infused intra-cortically at 85 mM, CX 717 enhances the efflux of noradrenaline, dopamine, and serotonin without altering glutamate levels [2]. Male Sprague-Dawley rats (280-350 g) received a dosage of 20 mg/kg (at 1 mL/kg) via intraperitoneal injection. Results indicated that CX 717 provoked antidepressant-like effects without changing extracellular noradrenaline (NA), dopamine (DA), serotonin (5-HT), and glutamate levels in the medial prefrontal cortex (mPFC) [2].

Solubility Information

Solubility	DMSO: 45 mg/mL (192.94 mM), Sonication and heating to 60°C are 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 (8.58 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.2876 mL	21.4381 mL	42.8761 mL
5 mM	0.8575 mL	4.2876 mL	8.5752 mL
10 mM	0.4288 mL	2.1438 mL	4.2876 mL
50 mM	0.0858 mL	0.4288 mL	0.8575 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

Linda J Porrino, et al. Facilitation of task performance and removal of the effects of sleep deprivation by an ampakine (CX717) in nonhuman primates. PLoS Biol. 2005 Sep;3(9):e299.

Marta Gordillo-Salas, et al. Antidepressant-Like Effects of CX717, a Positive Allosteric Modulator of AMPA Receptors. Mol Neurobiol. 2020 Aug;57(8):3498-3507.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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