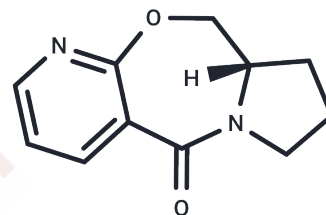


Org-26576

Chemical Properties

CAS No. : 1026791-61-6
 Formula: C₁₁H₁₂N₂O₂
 Molecular Weight: 204.23
 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	Org-26576 is a positive allosteric modulator of the AMPA receptor.
Targets(IC50)	GluR,iGluR
In vitro	Org-26576 shows selectivity for AMPA receptors when tested at 10 μM against >60 molecular targets including G-Protein Coupled Receptors, ion channels, and kinases. Org-26576 represents structurally a distinct chemical series derived from the first generation ampakine CX516 and shows 10-30 fold greater potency when compared to CX516 in potentiating AMPA-mediated electrophysiological responses with an EC ₅₀ of 8-16 μM in rat hippocampal primary cultured neurons [1].
In vivo	Org-26576 (Chronic administration) increases progenitor cell proliferation in the dentate gyrus (approximately 40%) and in the prelimbic cortex (approximately 35%) at the 10-mg/kg dosage. Cells born in response to chronic Org-26576 in dentate gyrus show increased rates of survival (approximately 30%) with the majority of surviving cells expressing a neuronal phenotype. Org-26576 (1 mg/kg) produces obviously enhances the anteroventral and laterodorsal thalamus, cingulate cortex, dentate gyrus, and CA3 subfield of the hippocampus in mice. AMPA receptor potentiation by Org-26576 exerts a positive modulatory influence on brain-derived neurotrophic factor (BDNF) expression during ongoing neuronal activity. Total BDNF mRNA levels are significantly increased in the hippocampus of animals exposed to the combination of Org-26576 and stress[1][2][3].

Solubility Information

Solubility	DMSO: 25 mg/mL (122.41 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.8964 mL	24.4822 mL	48.9644 mL
5 mM	0.9793 mL	4.8964 mL	9.7929 mL
10 mM	0.4896 mL	2.4482 mL	4.8964 mL
50 mM	0.0979 mL	0.4896 mL	0.9793 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

- Jordan GR, et al. Regionally selective and dose-dependent effects of the ampakines Org 26576 and Org 24448 on local cerebral glucose utilisation in the mouse as assessed by ¹⁴C-2-deoxyglucose autoradiography. *Neuropharmacology*. 2005 Aug;49(2):254-64.
- Su XW, et al. Chronic treatment with AMPA receptor potentiator Org 26576 increases neuronal cell proliferation and survival in adult rodent hippocampus. *Psychopharmacology (Berl)*. 2009 Oct;206(2):215-22.
- Fumagalli F, et al. The AMPA receptor potentiator Org 26576 modulates stress-induced transcription of BDNF isoforms in rat hippocampus. *Pharmacol Res*. 2012 Feb;65(2):176-81.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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