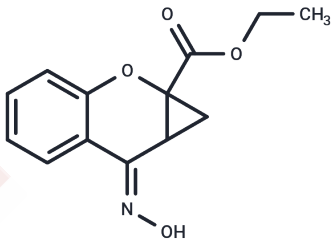
Data Sheet (Cat.No.T22692)

TargetMol

CPCCOEt

Chemical Properties



CAS No. : 179067-99-3

Formula: C13H13NO4

Molecular Weight: 247.25

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	CPCCOEt is a low-affinity, selective, non-competitive, and reversible antagonist of mGluR1b.
Targets(IC50)	GluR
In vitro	CPCCOEt selectively inhibited glutamate-induced increases in intracellular calcium at human mGluR1b (hmGluR1b) with an apparent IC50 of 6.5 μM while having no agonist or antagonist activity at hmGluR2, -4a, -5a, -7b, and -8a up to 100 μM. In addition, introduction of Thr815 and Ala818 at the homologous positions of hmGluR5a conferred complete inhibition by CPCCOEt (IC50 = 6.6 μM)[1].
In vivo	Whole-cell voltage recording from Purkinje cells in slices of rat cerebellum showed that CPCCOEt enhanced the climbing fiber response at concentrations of blocking the mGlu1 receptor(100 μM)[2].

Solubility Information

Solubility	DMSO: 90 mg/mL (364 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (13.35 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.0445 mL	20.2224 mL	40.4449 mL
5 mM	0.8089 mL	4.0445 mL	8.089 mL
10 mM	0.4044 mL	2.0222 mL	4.0445 mL
50 mM	0.0809 mL	0.4044 mL	0.8089 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

Litschig S, et al. CPCCOEt, a noncompetitive metabotropic glutamate receptor 1 antagonist, inhibits receptor signaling without affecting glutamate binding. Mol Pharmacol. 1999 Mar;55(3):453-61.
Fukunaga I, Yeo CH, Batchelor AM. The mGlu1 antagonist CPCCOEt enhances the climbing fibre response in Purkinje neurones independently of glutamate receptors. Neuropharmacology. 2007 Feb;52(2):450-8.