Data Sheet (Cat.No.T4522)

TargetMol

SSD114 HCl

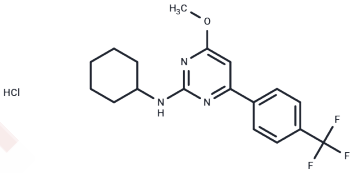
Chemical Properties

CAS No. : 2319790-02-6

Formula: C18H21ClF3N3O

Molecular Weight: 387.83

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	SSD114 is a novel GABAB receptor positive allosteric modulator.
Targets(IC50)	GABA Receptor
In vitro	In conditions containing 10 μM GABA, 25 μM SSD114 hydrochloride significantly increased the level of [35S]GTPγS activation induced by GABA alone to approximately 170% of basal levels.SSD114 hydrochloride (15 or 30 μM) caused a shift in the GABA concentration-response curve to the left and at the highest concentration slightly increased the maximal stimulatory effect of GABA. In the co-presence of 15 and 30 μM SSD114 hydrochloride, the EC50 of GABA was reduced by 2-fold and 2.5-fold, respectively, while the maximal stimulatory effect (Emax) was enhanced only at the 30 μM concentration to 161 ± 5.09% of the basal value [1].
In vivo	SSD114 hydrochloride pretreatment significantly shortened the onset time of the loss-of-orientation reflex (LORR) [F(5,30)=4.55, P<0.005]. Follow-up analyses showed that the onset time of LORR was significantly shorter in the group of mice that received pretreatment at doses equal to or higher than 10 mg/kg SSD114 hydrochloride compared to the control group. In addition, SSD114 hydrochloride pretreatment prolonged the duration of LORR [F(5,30)=4.81, P<0.005]. Follow-up analysis indicated that the LORR duration was significantly prolonged in the group of mice receiving 10 and 100 mg/kg SSD114 hydrochloride pretreatment compared to the control group [1].

Solubility Information

Solubility	DMSO: 45 mg/mL (116.03 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: 2.5 mg/mL (6.45 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	2.5784 mL	12.8922 mL	25.7845 mL
5 mM	0.5157 mL	2.5784 mL	5.1569 mL
10 mM	0.2578 mL	1.2892 mL	2.5784 mL
50 mM	0.0516 mL	0.2578 mL	0.5157 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

Porcu A, et al. In vitro and in vivo pharmacological characterization of SSD114, a novel GABAB positive allosteric modulator. Eur J Pharmacol. 2016 Nov 15;791:115-123.