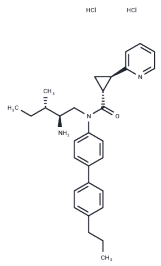
Data Sheet (Cat.No.T13423)

TargetMol

(1R,2R)-2-PCCA hydrochloride

Chemical Properties



CAS No. : 1609563-71-4

Formula: C30H39Cl2N3O

Molecular Weight: 528.56

Storage: Store at low temperature
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	(1R,2R)-2-PCCA hydrochloride is a potent, selective, and blood-brain-barrier-crossing GPR88 receptor agonist with an EC50 value of 1140 n in striatal membranes of WT mice; it can be used to study the central nervous system.
Targets(IC50)	Others,GPCR
In vitro	(1R,2R)-2-PCCA hydrochloride (Example 3) is an effective GPR88 receptor agonist with an EC50 of 3 nM in cell-free assay experiments and 603 nM in cellular assays[1]. Through the Gαi-coupled pathway, (1R,2R)-2-PCCA hydrochloride inhibits GPR88-mediated cAMP production, with an EC50 of 56 nM cAMP constructs in HEK293 cells stably expressing human GPR88 receptor and GloSensor-22F[1].

Solubility Information

Solubility	DMSO: 20 mg/mL (37.84 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 mg/mL (3.78 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	1.8919 mL	9.4597 mL	18.9193 mL
5 mM	0.3784 mL	1.8919 mL	3.7839 mL
10 mM	0.1892 mL	0.946 mL	1.8919 mL
50 mM	0.0378 mL	0.1892 mL	0.3784 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

Jin C, et al. Effect of Substitution on the Aniline Moiety of the GPR88 Agonist 2-PCCA: Synthesis, Structure-Activity Relationships, and Molecular Modeling Studies. ACS Chem Neurosci. 2016 Oct 19;7(10):1418-1432.
Jin C, et al. Synthesis, pharmacological characterization, and structure-activity relationship studies of small molecular agonists for the orphan GPR88 receptor. ACS Chem Neurosci. 2014 Jul 16;5(7):576-87.