

Product Data Sheet

Product Name: 2-PCCA(hydrochloride)

Cat. No.: GC34382

Chemical Properties

Cas. No.

SMILES [H]Cl.[H]Cl.CCCC1=CC=C(C2=CC=C(N(C[C@@H](N)[C@@H](C)CC)C([C@@H]3[C@@H](C4=CC=CC=N4)C3)=O)C=C2)C=C1.CCCC5=CC=C(C6=CC=C(N(C[C@@H](N)[C@@H](C)CC)C([C@H]7[C@H](C8=CC=CC=N8)C7)=O)C=C6)C=C5

Formula $C_{60}H_{76}Cl_2N_6O_2$ M.Wt 984.19

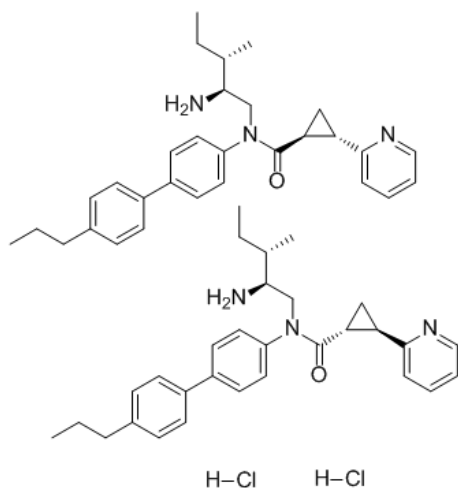
Solubility DMSO : 100 mg/mL (203.21 mM; Need ultrasonic); H_2O : 20 mg/mL (40.64 mM; Need ultrasonic)

Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility , please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Protocol

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Animal experiment: Rats[1] For the locomotor activity tests, rats are only used once. The test is conducted in an adjacent room from the animal colony room with similar environmental conditions (light, temperature and humidity). Before tests begin, rats are exposed to at least three days of handling by the experimenter. When only 2-PCCA (1.0 and 3.2 mg/kg) is studied, the drug is (i.p.) injected immediately before the rats are put into the test chambers and the locomotor activity is simultaneously recorded for 60 min. When 2-PCCA is studied in combination with methamphetamine, the locomotor activity is recorded for 20 min and then both drugs are simultaneously injected and the locomotor activity is recorded for 120 more min[1].

References:

- [1]. Li JX, et al. The GPR88 receptor agonist 2-PCCA does not alter the behavioral effects of methamphetamine in rats. *Eur J Pharmacol.* 2013 Jan 5;698(1-3):272-7.
- [2]. 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.

Background

2-PCCA hydrochloride is a GPR88 receptor agonist, and inhibits GPR88-mediated cAMP production, with an EC₅₀ of 116 nM in HEK293 cells.

2-PCCA hydrochloride inhibits GPR88-mediated cAMP production through a G α i-coupled pathway, with an EC₅₀ of 116 nM in HEK293 cells stably expressing the human GPR88 receptor and the GloSensor-22F cAMP construct[2].

2-PCCA (0.1-3.2 mg/kg, i.p.) decreases the locomotor activity in rats in a dose-dependent manner in rats. 2-PCCA combined with 1.0 mg/kg methamphetamine also dose-dependently reduces methamphetamine-induced hyperactivity. 2-PCCA (1-3.2 mg/kg, i.p.) alone does not produce methamphetamine-like discriminative stimulus effects, or alter the discriminative stimulus effects of methamphetamine, when studied in combination[1].

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

[1]. Li JX, et al. The GPR88 receptor agonist 2-PCCA does not alter the behavioral effects of methamphetamine in rats. *Eur J Pharmacol.* 2013 Jan 5;698(1-3):272-7. [2]. 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.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA