(RS)-MCPG

Cat. No.: HY-100371

CAS No.: 146669-29-6

Molecular Formula: $C_{10}H_{11}NO_4$

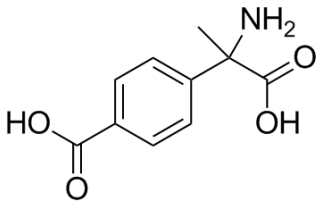
Molecular Weight: 209.2

Target: mGluR

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

1M NaOH : 100 mg/mL (478.01 mM; ultrasonic and adjust pH to 10 with NaOH)

DMSO : 6 mg/mL (28.68 mM; Need ultrasonic and warming)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.7801 mL	23.9006 mL	47.8011 mL
5 mM	0.9560 mL	4.7801 mL	9.5602 mL
10 mM	0.4780 mL	2.3901 mL	4.7801 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

(RS)-MCPG (alpha-MCPG) is a competitive and selective group I/group II metabotropic glutamate receptor (mGluR) antagonist. (RS)-MCPG blocks theta-burst stimulation (TBS)-induced shifts in both juvenile and neonatal rat hippocampal neurons[1][2].

IC_{50} & Target

group I/group II mGluR[1]

In Vitro

MCPG can block group I (mGluR1 and mGluR5) and group II receptors (mGluR2 and mGluR3)[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

(RS)-MCPG (alpha-MCPG; 500 μM) blocks the TBS-induced shifts in EGABA in either juvenile or neonatal neurons[1].

Pretreatment with the low dose of (RS)-MCPG (25 nM; i.c.; daily; 5 days) significantly attenuates amphetamine-induced locomotor activity in 10-day-old male and female rats of Sprague-Dawley descent[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Front Cell Neurosci. 2019 Jun 25;13:276.

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REFERENCES

[1]. Yang B et al. Regulation of GABA Equilibrium Potential by mGluRs in Rat Hippocampal CA1 Neurons. PLoS One, 2015 Sep 21, 10(9):e0138215.

[2]. Fiona Yeuk-Lun Choi, et al. The effects of (RS)-MCPG on amphetamine-induced sensitization in neonatal rats.

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