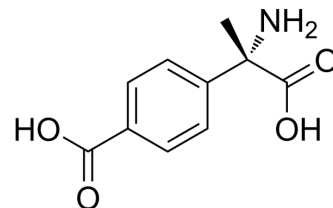


(S)-MCPG

Cat. No.:	HY-100406		
CAS No.:	150145-89-4		
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

H₂O : 100 mg/mL (478.01 mM; ultrasonic and adjust pH to 13 with 1M NaOH)
 1M NaOH : 22 mg/mL (105.16 mM; ultrasonic and adjust pH to 11 with NaOH)

Concentration	Mass		
	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

(S)-MCPG ((+)-MCPG) is a potent group I/II metabotropic glutamate receptor (mGluRs) antagonist and the active isomer of (RS)-MCPG (HY-100371)^[1]. (S)-MCPG can be used for the study of the function of mGluRs in spatial learning^[2].

IC₅₀ & Target

mGluR

In Vitro

(S)-MCPG (100 μM) has no detectable effects on basal spine formation or elimination mechanisms in WT slice cultures. (S)-MCPG prevents the increase in spine turnover triggered by TBS and interferes with the mechanisms of activity-dependent spine stabilization in Hippocampal slice cultures^[1].

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

CUSTOMER VALIDATION

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- Research Square Preprint. 2023 Nov 13.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Bernadett Boda, et al. Reversal of activity-mediated spine dynamics and learning impairment in a mouse model of Fragile X syndrome. *Eur J Neurosci*. 2014 Apr;39(7):1130-7.
- [2]. F Bordi, et al. Effects of the metabotropic glutamate receptor antagonist MCPG on spatial and context-specific learning. *Neuropharmacology*. 1996;35(11):1557-65.
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA