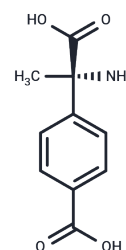


(S)-MCPG

Chemical Properties

CAS No. :	150145-89-4
Formula:	C ₁₀ H ₁₁ NO ₄
Molecular Weight:	209.20
Appearance:	no data available
Storage:	store at low temperature
	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	(S)-MCPG ((+)-MCPG) is a class I/II metabotropic glutamate receptors (mGluRs) antagonist that blocks spatial learning and long-term enhancement of the dentate gyrus in vivo in rats, and can be used to study neurological disorders.
Targets(IC50)	GluR
In vivo	In male Lister-Hooded rats learning the Morris water maze, (S)-MCPG (20 µg; intraventricular injection; 4 days) impaired the performance of rats in the spatial version of the Morris water maze, but 1/10 of this dose did not[2].

Solubility Information

Solubility	DMSO: 5 mg/mL (23.90 mM), Sonication is recommended. H ₂ O: 80 mg/mL (382.41 mM), when pH is adjusted to 13 with NaOH. Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.7801 mL	23.9006 mL	47.8011 mL
5 mM	0.956 mL	4.7801 mL	9.5602 mL
10 mM	0.478 mL	2.3901 mL	4.7801 mL
50 mM	0.0956 mL	0.478 mL	0.956 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.

Reference

- 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.
- F Bordi, et al. Effects of the metabotropic glutamate receptor antagonist MCPG on spatial and context-specific learning. *Neuropharmacology*. 1996;35(11):1557-65.
- Garrido-García A, de Andrés R, Jiménez-Pompa A, Soriano P, Sanz-Fuentes D, Martínez-Blanco E, Díez-Guerra FJ. Neurogranin Expression Is Regulated by Synaptic Activity and Promotes Synaptogenesis in Cultured Hippocampal Neurons. *Mol Neurobiol*. 2019 Nov;56(11):7321-7337.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481