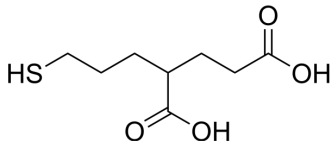
2-MPPA

Cat. No.:	HY-103345
CAS No.:	254737-29-6
Molecular Formula:	$C_8H_{14}O_4S$
Molecular Weight:	206.26
Target:	Carboxypeptidase
Pathway:	Metabolic Enzyme/Protease
Storage:	Pure form -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (484.82 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	4.8482 mL	24.2412 mL	48.4825 mL
	5 mM	0.9697 mL	4.8482 mL	9.6965 mL
	10 mM	0.4848 mL	2.4241 mL	4.8482 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (12.12 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (12.12 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (12.12 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

2-MPPA (GPI-5693) is an orally active and selective glutamate carboxypeptidase II (GCP II; PSMA) inhibitor with an IC_{50} of 90 nM[1][2].

IC_{50} & Target

IC_{50}: 90 nM (GCP II)[2]

In Vivo

2-MPPA (10, 30 or 100 mg/kg) significantly attenuates Dizocilpine (HY-15084B) (0.1 mg/kg)-induced prepulse inhibition (PPI) deficits in mice, in a dose dependent manner. The efficacy of 2-MPPA on dizocilpine-induced PPI deficits is significantly

antagonized by pretreatment with the selective group II metabotropic glutamate receptor (mGluR) antagonist LY341495 (HY-70059) (1.0 mg/kg)[1].

2-MPPA (30 mg/kg) significantly prevents the deficit in SNCV induced by both 5 and 25 mg/kg taxol by 96.3 ± 4.4% and 98.3± 11.6% respectively[2].

2-MPPA (10 mg/kg) inhibits tumor growth in the high expressor PSMA model CWR22RS by 70%[2].

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

REFERENCES

[1]. Takatsu Y, et al. Orally active glutamate carboxypeptidase II inhibitor 2-MPPA attenuates dizocilpine-induced prepulse inhibition deficits in mice. Brain Res. 2011 Jan 31;1371:82-6.

[2]. She Y, et al. 2-MPPA, a selective inhibitor of PSMA, delays prostate cancer growth and attenuates taxol-induced neuropathy in mice. Journal of Clinical Oncology, 2005, 23(16_suppl): 8054-8054.

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