

Sarcosine

Chemical Properties

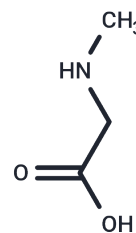
CAS No. : 107-97-1

Formula: C₃H₇NO₂

Molecular Weight: 89.09

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Sarcosine (Methylglycine) is a competitive inhibitor of the type I glycine transporter (GlyT1) and an N-methyl-D-aspartate receptor (NMDAR) co-agonist.
Targets(IC50)	Endogenous Metabolite,GlyT
In vitro	Sarcosine is a GlyR agonist in addition to being a GlyT1 inhibitor and NMDAR co-agonist, but it is less potent than glycine as a GlyR agonist and is not a full agonist[1]. The viability of the sarcosine-treated cells is significantly reduced[4].
In vivo	Sarcosine has weak anticonvulsant properties[2]. It ameliorates (prepulse inhibition)PPI deficits in mGluR5 knockout mice[3].
Cell Research	Immediately after the cells grow to 50-60% confluence, the cultivation medium is replaced by fresh medium to synchronise cell growth. Cells are cultivated for 24 h under these conditions. Subsequently, the culture medium is supplemented with sarcosine (N-methylglycine) diluted to a final concentration 10, 150, 250, 500, 1,000 and 1,500 µM. Treatment is carried out for 0, 6, 12, 24 and 72 h, and samples are collected at these strictly defined time points.(Only for Reference)

Solubility Information

Solubility	DMSO: Insoluble, H ₂ O: 10 mM,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	11.2246 mL	56.123 mL	112.246 mL
5 mM	2.2449 mL	11.2246 mL	22.4492 mL
10 mM	1.1225 mL	5.6123 mL	11.2246 mL
50 mM	0.2245 mL	1.1225 mL	2.2449 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

Zhang HX, et al. Neuropharmacology. 57(5-6):551-5.

Socała K, et al. Pharmacol Rep. 2010, 62(2):392-7.

Chen HH, et al. Psychopharmacology (Berl). 2010, 209(4):343-50.

Sudhakaran P R , Binu S , Soumya S J . Effect of sarcosine on endothelial function relevant to angiogenesis.[J].

Journal of Cancer Research & Therapeutics, 2014, 10(3):603-610.

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