

L-Glutamic acid

Chemical Properties

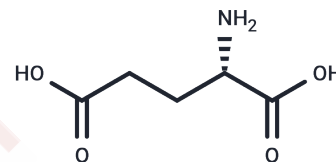
CAS No. : 56-86-0

Formula: C₅H₉NO₄

Molecular Weight: 147.13

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

Actual storage temperature shall be subject to the COA.



Biological Description

Description	L-Glutamic acid is an excitatory amino acid neurotransmitter and a Glutamic acid receptor agonist, including metabolic glutamic acid receptor (mGluR), AMPA receptor, NMDA receptor and KA receptor. L-Glutamic acid has an excitatory effect on the process of DA release from dopaminergic nerve endings. L-Glutamic acid can be used in the research of neurological diseases. L-Glutamic acid acts on ionic and metabolic Glutamic acid receptors.
Targets(IC50)	Apoptosis, Ferroptosis, Endogenous Metabolite, iGluR
In vitro	METHODS: SH-SY5Y cells were treated with L-Glutamic acid (10, 20, 30 mM) for 3 hours, and cell viability was detected using the MTT assay. RESULTS: L-Glutamic acid reduced the viability of SH-SY5Y cells. [1]

Solubility Information

Solubility	H ₂ O: 8.27 mg/mL (56.21 mM), Sonication is recommended. DMSO: < 1 mg/mL (insoluble or slightly soluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.7967 mL	33.9836 mL	67.9671 mL
5 mM	1.3593 mL	6.7967 mL	13.5934 mL
10 mM	0.6797 mL	3.3984 mL	6.7967 mL
50 mM	0.1359 mL	0.6797 mL	1.3593 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Shah SA, et al. Anthocyanins abrogate glutamate-induced AMPK activation, oxidative stress, neuroinflammation, and neurodegeneration in postnatal rat brain. J Neuroinflammation. 2016 Nov 8;13(1):286.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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