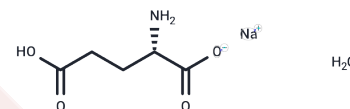


L-Glutamic acid monosodium salt monohydrate

Chemical Properties

CAS No. :	6106-04-3
Formula:	C ₅ H ₁₀ NNaO ₅
Molecular Weight:	187.13
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 monosodium salt monohydrate (MSG monohydrate) is an important food additive with gastrointestinal protective effects. It plays a critical role in nutrient metabolism, energy demand, immune response, oxidative stress, signal transduction, and synaptic transmission. L-Glutamic acid monosodium salt monohydrate can induce oxidative stress, DNA damage, and apoptosis in mouse liver and brain tissues. It can protect against gastrointestinal damage caused by NSAIDs and Helicobacter pylori through multiple mechanisms.
Targets(IC50)	Apoptosis
In vitro	L-Glutamic acid monosodium salt monohydrate can lead to oxidative stress-mediated DNA damage and apoptosis. [1]
In vivo	L-Glutamic acid monosodium salt monohydrate can be used to induce obesity in animal models. [1]

Solubility Information

Solubility	H ₂ O: 250 mg/mL (1335.97 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	5.3439 mL	26.7194 mL	53.4388 mL
5 mM	1.0688 mL	5.3439 mL	10.6878 mL
10 mM	0.5344 mL	2.6719 mL	5.3439 mL
50 mM	0.1069 mL	0.5344 mL	1.0688 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

SAID SALEM, et al. MEASUREMENT OF DNA DAMAGE, OXIDATIVE STRESS, AND GENE EXPRESSION OF β -CATENIN AND P53 GENES IN LIVER AND BRAIN OF MALE MICE RECEIVING MONOSODIUM L-GLUTAMATE MONOHYDRATE. Asian Journal of Pharmaceutical and Clinical Research, vol. 13, no. 7, July 2020, pp. 127-32,

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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