
Product Data Sheet

Product Name: Glutaurine

Cat. No.: GC62992

Chemical Properties

Cas. No. 56488-60-9

Formula $C_7H_{14}N_2O_6S$

M.Wt 254.26

Solubility Water : 125 mg/mL (491.62 mM; Need ultrasonic) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Protocol****Animal experiment****[1]:**

Animal models Tetra-B chicks

Preparation Method Tetra-B chicks, age 7 weeks, maintained on standard poultry food, were divided into 2 subgroups and treated daily with 2µg/100g of Glutaurine, dissolved in 0.5ml of tap water. The control group received only 0.5ml of tap water. After 1 week of treatment (at 8 weeks of age) the chicks were bled and their serum uric acid levels were determined. After bleeding, the liver and the kidneys were removed, and tissue samples of about 1g were taken for the determination of uric acid level.

Dosage form 2µg/100g/day for 1 week; p.o.

Caution: Product has not been fully validated for medical applications. For research use only.

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Applications Glutaurine treatment resulted in a significant reduction of the hepatic and renal tissue uric acid levels.

References:

[1] Feuer L, Tóth B L, Bárdos L. Effect of glutaurine (γ -l-glutamyl-taurine) on serum, hepatic, and renal uric acid levels[J]. Biochemical medicine, 1981, 26(3): 326-329.

Background

Glutaurine, a bioactive dipeptide isolated from the bovine parathyroid gland, antagonizes cortison and thyroxin [1]. Glutaurine acts as endogenous modulator in excitatory aminoacidergic neurotransmission and affects the concentration of monoamine neurotransmitters in the brain[2]. Glutaurine has been widely used to promote thymic culture growth and promote macrophage activation[3].

In vivo, Glutaurine treatment via daily oral administration at a dose of 2 μ g/100g for 7 days resulted in a significant reduction of the hepatic and renal tissue uric acid levels in Tetra-B chicks [4]. Oral administration of a daily dose of 2 μ g/kg of Glutaurine for 4 days resulted in a significant increase in DNA synthesis in the spleen of CFLB mice without affecting mouse body weight[5]. Glutaurine (50 μ g/rat; p.o.) effectively restored the latency of entry in the 24 test at the dose of 50 μ g/rat[6]. Glutaurine (3mg/kg; i.p.) dramatically decreased T3 blood levels without significantly raising T4 blood levels[7].

References:

[1] Feuer L, Katalin S. Effect of litoralon, taurine and other taurine derivatives on the heart muscle cell membrane of the locusta migratoria (migratoriodes RF)[J]. Comparative Biochemistry and Physiology Part C: Comparative Pharmacology, 1981,

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69(2): 411-414.

[2] Bittner S, Win T, Gupta R. γ -L-glutamyltaurine[J]. Amino Acids, 2005, 28(4): 343-356.

[3] Feuer L, Török O, Csaba G. Effect of glutaurine, a newly discovered parathyroid hormone on rat thymus cultures[J]. Acta Morphologica Academiae Scientiarum Hungaricae, 1978, 26(2): 87-94.

[4] Feuer L, Tóth B L, Bárdos L. Effect of glutaurine (γ -l-glutamyl-taurine) on serum, hepatic, and renal uric acid levels[J]. Biochemical medicine, 1981, 26(3): 326-329.

[5] Antoni F, Feuer L, Hrabák A, et al. The effect of carrageenan and glutaurine on DNA synthesis of spleen cells in CFLB mice[J]. Biochemical medicine, 1979, 22(2): 238-245.

[6] Feuer L, Török O, Csaba G. Effect of glutaurine, a newly discovered parathyroid hormone on rat thymus cultures[J]. Acta Morphologica Academiae Scientiarum Hungaricae, 1978, 26(2): 87-94.

[7] Baskin S, Bartuska D, Thampi N, et al. The effect of glutaurine on thyroid hormones in the rat[J]. Neuropeptides, 1987, 9(1): 45-50.

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