

N-Acetylcarnosine

Chemical Properties

CAS No. : 56353-15-2

Formula: C₁₁H₁₆N₄O₄

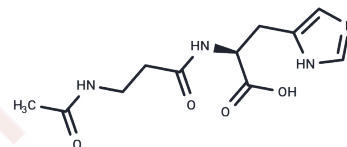
Molecular Weight: 268.27

Storage:

Store at low temperature, Keep away from moisture,
Keep away from direct sunlight

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	N-Acetylcarnosine (N-Acetyl-L-carnosine) is thought to be able to combat some of the effects of oxidative stress as it has anti-oxidant properties.
Targets(IC50)	Others, Endogenous Metabolite
In vivo	Formulation A, containing 1% N-Acetylcarnosine, is administered in an 80 µL volume to the right eyes of male grey chinchilla rabbits (aged 3-4 months, weighing 2-3 k). This N-Acetylcarnosine prodrug in eye drop form is designed to enhance clinical outcomes for ophthalmic conditions, specifically aiding in the prevention and reversal of cataracts in both human and animal eyes [1].

Solubility Information

Solubility	H ₂ O: 250 mg/mL (931.9 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	3.7276 mL	18.6379 mL	37.2759 mL
5 mM	0.7455 mL	3.7276 mL	7.4552 mL
10 mM	0.3728 mL	1.8638 mL	3.7276 mL
50 mM	0.0746 mL	0.3728 mL	0.7455 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

Babizhayev MA, et al. N-Acetylcarnosine, a natural histidine-containing dipeptide, as a potent ophthalmic drug in treatment of human cataracts. *Peptides*. 2001 Jun;22(6):979-94.

Ma X, Tan X, Yu B, et al. DOCK2 regulates antifungal immunity by regulating RAC GTPase activity. *Cellular & Molecular Immunology*. 2022: 1-17.

Xue K H, Jiang Y F, Bai J Y, et al. Melatonin suppresses Akt/mTOR/S6K activity, induces cell apoptosis, and synergistically inhibits cell growth with sunitinib in renal carcinoma cells via reversing Warburg effect. *Redox Report*. 2023, 28(1): 2251234.

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