

L-carnosine Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: L-carnosine

Catalog No.: CFN93091

Cas No.: 305-84-0

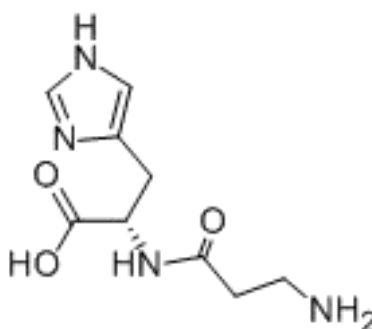
Purity: >=98%

M.F: C₉H₁₄N₄O₃

M.W: 226.23

Physical Description: Powder

Synonyms: Carnosine; N-beta-Alanyl-L-histidine; Beta-alanylhistidine;
Beta-alanyl-L-histidine.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Synthetic precursor compounds;
5. Intermediates & Fine Chemicals;
6. Others.

[Source]

The herbs of *Geranium wilfordii* Maxim.

[Biological Activity or Inhibitors]

L-Carnosine and carcine act as natural antioxidants with hydroxyl-radical-scavenging and lipid-peroxidase activities.^[1]

L-Carnosine can enhance frontal lobe function or be neuroprotective, it can also correlate with gamma-aminobutyric acid (GABA)-homocarnosine interaction, with possible anticonvulsive effects.^[2]

L-Carnosine plays a possibility role in the regulation of blood glucose through controlling autonomic nerves. ^[3]

L-Carnosine can prevent the development of ischemia/reperfusion (I/R)-induced renal injury, and the effect is accompanied by suppressing the enhanced renal sympathetic nerve activity (RSNA) during ischemia; the renoprotective effect of l-carnosine on ischemic acute renal failure (ARF) is induced by its conversion to l-histidine and l-histamine and is mediated through the activation of histamine H(3) receptors in the central nervous system.^[4]

L-Carnosine can reduce telomere damage and shortening rate in cultured normal fibroblasts; it can delay the replicative senescence, and extend the lifespan of cultured human diploid fibroblasts.^[5]

L-Carnosine has neuroprotective properties in the brain slices exposed to autoblood in the hemorrhagic stroke model in vitro.^[6]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[7]

Mobile phase: Acetonitrile-40 mM Dibasic potassium phosphate (adjusted pH to 6.3 with Phosphoric acid)=44:56 ;

Flow rate: 1.0 ml/min;

Column temperature: 35 °C;

The wave length of determination: 210 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

- [1] Babizhayev M A, Seguin M C, Gueyne J, *et al. Biochem. J.*, 1994, 304 (Pt 2):509-16.
- [2] Chez M G, Buchanan C P, Aimonovitch M C, *et al. J. Child Neurol.*, 2002, 17(11):833-7.
- [3] Nagai K, Nijima A, Yamano T, *et al. Exp. Biol. Med.*, 2003, 228(10):1138-45.
- [4] Kurata H, Fujii T, Tsutsui H, *et al. J.Pharmacol. Exp. Ther.*, 2006, 319(2):640-7.
- [5] Shao L, Li Q H, Tan Z. *Biochem.Bioph. Res. Co.*, 2004, 324(2):931-6.
- [6] Khama-Murad A K, Mokrushin A A, Pavlinova L I. *Regul. Peptides*, 2011, 167(1):65-9.
- [7] Han M N, Chen X H, Qi Q G, *et al. Chinese Pharmaceutical Journal*, 2009, 44(14):1111-3.

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