

Carnosic acid Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Carnosic acid

Catalog No.: CFN99102

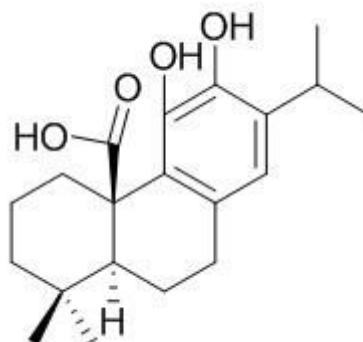
Cas No.: 3650-09-7

Purity: >=98%

M.F: C₂₀H₂₈O₄

M.W: 332.43

Physical Description: Powder



Synonyms: (4aR-trans)-1,3,4,9,10,10a-Hexahydro-5,6-dihydroxy-1,1-dimethyl-7-(1-methylethyl)-4a(2H)-phenanthrenecarboxylic acid.

[Intended Use]

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

[Source]

The herbs of *Rosmarinus officinalis* L.

[Biological Activity or Inhibitors]

Carnosic acid can protect neurons both in vitro and in vivo through activation of the Keap1/Nrf2 pathway via S-alkylation of targeted cysteines on Keap1.^[1]

Carnosic acid has antioxidant properties, it is a powerful inhibitor of lipid peroxidation in microsomal and liposomal systems.^[2]

Carnosic acid, vitamin C, and vitamin E show photoprotective potential.^[3]

Carnosic acid is a class of lipid absorption inhibitor from sage.^[4]

Carnosic acid is capable of antiproliferative action in leukemic cells and can cooperate with other natural anticancer compounds in growth-inhibitory and differentiating effects.^[5]

Carnosic acid has a protective effect on cisplatin induced experimental nephrotoxicity and is attributed to its potent antioxidant and antiapoptotic properties.^[6]

Carnosic acid has antimicrobial activity against oral pathogens.^[7]

Carnosic acid can inhibit adipogenesis in vitro, and it is a therapeutic agent for obesity-related non-alcoholic fatty liver disease.^[8]

[Solvent]

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

[HPLC Method]^[9]

Mobile phase: Acetonitrile-0.1% Phosphoric acid in water=55:45;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 210 nm

[Storage]

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

[References]

- [1] Satoh T, Kosaka K, Itoh K, *et al. J. Neurochem.*, 2008 Feb; 104(4):1116-31.
- [2] Aruoma O I, Halliwell B, Aeschbach R, *et al. Xenobiotica*, 1992, 22(2):257-68.
- [3] Offord E A, Gautier J C, Avanti O, *et al. Free Radic. Biol. Med.*, 2002 Jun 15; 32(12): 1293-303.
- [4] Ninomiya K, Matsuda H, Shimoda H, *et al. Bioorg. Med. Chem. Lett.*, 2004 Apr 19; 14(8):1943-6.
- [5] Steiner M, Priel I, Giat J, *et al. Nutr. Cancer*, 2001; 41(1-2):135-44.
- [6] Sahu B D, Rentam K K R, Putcha U K, *et al. Food Chem. Toxicol.*, 2011 Dec; 49(12): 3090-7.
- [7] Wagner A, Bernardes, Lucarini R, Marcos G. Tozatti, *et al. Chem. Biodivers.*, 2010 Jul; 7(7):1835-40.
- [8] Wang T, Takikawa Y, Satoh T, *et al. Hepatol. Res.*, 2011 Jan; 41(1):87-92.
- [9] Yan H, Wang L, Li X, *et al. Biomed. Chromatogr.*, 2009 Jul; 23(7):776-81.

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