



LKT Laboratories, Inc.

Carnosic Acid

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Product Information

Product ID C0265

CAS No. 3650-09-7

Chemical Name

Synonym Salvin

Formula $C_{20}H_{28}O_4$

Formula Wt. 332.43

Melting Point 193-199°C

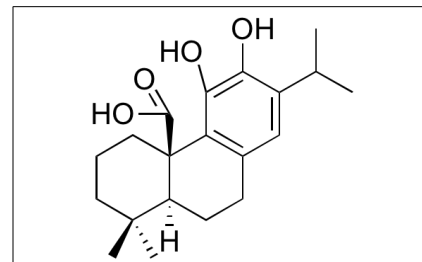
Purity ≥98%

Solubility Slightly soluble in water.
Soluble in DMSO, ethanol.

Store Temp -20°C

Ship Temp Ambient

Description Carnosic acid is a diterpene found in *Rosmarinus* that exhibits antioxidative, anti-inflammatory, neuroprotective, cognition enhancing, and anticancer chemotherapeutic activities. Carnosic acid inhibits growth of colon adenocarcinoma cells and decreases tumor number in vivo by downregulating expression of Bcl-xl and cyclin D1 and inducing cell cycle arrest and apoptosis. Carnosic acid also induces autophagy and inhibits Akt/mTOR signaling in hepatoma cells. In animal models of Alzheimer's disease, carnosic acid ameliorates amyloid B (AB)-induced spatial memory and learning deficits. In other animal models, this compound decreases isoproterenol-induced increases in troponin I, creatine kinase, lactate dehydrogenase, SGOT, and SGPT and upregulates activity of phase II enzymes. Additionally, carnosic acid decreases TNF-α-induced activation of ERK, JNK, and IKK and expression of mTOR, eIF4E, and IL-6 in vitro.



Bulk quantities available upon request

Product ID	Size
C0265	5 mg
C0265	25 mg
C0265	50 mg

References Kim YJ, Kim JS, Seo YR, et al. Carnosic acid suppresses colon tumor formation in association with anti-adipogenic activity. *Mol Nutr Food Res*. 2014 Sep 9. [Epub ahead of print]. PMID: 25204550.

Gao Q, Liu H, Yao Y, et al. Carnosic acid induces autophagic cell death through inhibition of the Akt/mTOR pathway in human hepatoma cells. *J Appl Toxicol*. 2014 Sep 1. [Epub ahead of print]. PMID: 25178877.

Sahu BD, Putcha UK, Kuncha M, et al. Carnosic acid promotes myocardial antioxidant response and prevents isoproterenol-induced myocardial oxidative stress and apoptosis in mice. *Mol Cell Biochem*. 2014 Sep;394(1-2):163-76. PMID: 24903830.

Tsai CW, Liu KL, Lin YR, et al. The mechanisms of carnosic acid attenuates tumor necrosis factor-α-mediated inflammation and insulin resistance in 3T3-L1 adipocytes. *Mol Nutr Food Res*. 2014 Apr;58(4):654-64. PMID: 24668853.

Rasoolijazi H, Azad N, Joghataei MT, et al. The protective role of carnosic acid against beta-amyloid toxicity in rats. *ScientificWorldJournal*. 2013 Oct 24;2013:917082. PMID: 24363627.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.