

PRODUCT INFORMATION

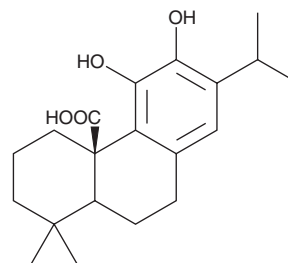


Carnosic Acid

Item No. 89820

CAS Registry No.: 3650-09-7
Formal Name: 1,3,4,9,10,10aS-hexahydro-5,6-dihydroxy-1,1-dimethyl-7-(1-methylethyl)-4aR(2H)-phenanthrenecarboxylic acid

Synonym: Salvin
MF: C₂₀H₂₈O₄
FW: 332.4
Purity: ≥95%
UV/Vis.: λ_{max}: 284 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Carnosic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the carnosic acid in the solvent of choice, which should be purged with an inert gas. Carnosic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of carnosic acid in these solvents is approximately 30 mg/ml.

Carnosic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, carnosic acid should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Carnosic acid has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Carnosic acid is an active diterpene found in rosemary (*R. officinalis*) and common sage (*S. officinalis*). Its antioxidant properties include inhibition of lipid peroxidation and scavenging of peroxy radicals.¹ Carnosic acid has been shown to be cytotoxic towards various human cancer cell lines, reducing cell viability to 13-30% 48 hours after application at a concentration of 6.25 µg/ml.²

References

1. Aruoma, O.I., Halliwell, B., Aeschbach, R., *et al.* Antioxidant and pro-oxidant properties of active rosemary constituents: Carnosol and carnosic acid. *Xenobiotica* **22(2)**, 257-268 (1992).
2. Yesil-Celiktas, O., Sevimli, C., Bedir, E., *et al.* Inhibitory effects of rosemary extracts, carnosic acid and rosmarinic acid on the growth of various human cancer cell lines. *Plant Foods Hum. Nutr.* **65(2)**, 158-163 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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