



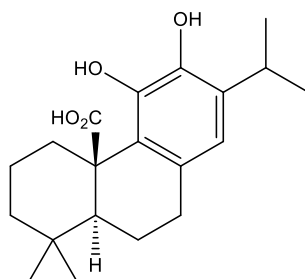
### Catalog # 10-2401

#### Carnosic acid

CAS# 3650-09-7

Natural diterpenoid resorcinol isolated from *Rosmarinus officinalis*

Lot # X104216



Antioxidant and free radical scavenger. Increases cellular levels of glutathione (GSH) and prevents 6-hydroxydopamine-induced cell death in SH-SY5Y cells.<sup>1</sup> Carnosic acid-stimulation of GSH inhibits adipocyte differentiation.<sup>2</sup> Induces apoptosis<sup>3</sup> and inhibits the proliferation and migration of various tumor cell lines<sup>4</sup>.

- 1) Chen *et al.* (2012), *Carnosic acid prevents 6-hydroxydopamine-induced cell death in SH-SY5Y cells via mediation of glutathione synthesis*; Chem. Res. Toxicol., **25** 1893
- 2) Takahashi *et al.* (2009), *Carnosic acid and carnosol inhibit adipocyte differentiation in mouse 3T3-L1 cells through induction of phase2 enzymes and activation of glutathione metabolism*; Biochem. Biophys. Res. Commun., **382** 549
- 3) Kar *et al.* (2012), *Carnosic acid modulates Akt/IKK/NF- $\kappa$ B signaling by PP2A and induces intrinsic and extrinsic pathway mediated apoptosis in human prostate carcinoma PC-3 cells*; Apoptosis, **17** 735
- 4) Barni *et al.* (2012), *Carnosic acid inhibits the proliferation and migration capacity of human colorectal cancer cells*; Oncol. Rep., **27** 1041

#### PHYSICAL DATA

Molecular Weight:	332.44
Molecular Formula:	C <sub>20</sub> H <sub>28</sub> O <sub>4</sub>
Purity:	95% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 50 mg/ml)
Physical Description:	Off-white or yellow solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 3 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 months.

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