



Carnosic Acid

Data Sheet

Catalog Number:	MC11058	Product Type:	Small Molecule
Bio-Activity:	Immunomodulator	CAS #:	3650-09-7
Research Categories:	Cell death, oxidative stress, immunology, neuroscience, cancer, diabetes, inflammation, neurodegeneration	Chemical Name:	Natural diterpenoid resorcinol isolated from Rosmarinus officinalis.
Solubility:	Soluble in DMSO (up to 50 mg/ml).	Molecular Formula:	C ₂₀ H ₂₈ O ₄
Purity:	> 98%	Molecular Weight:	332.42
Format:	Powder	Ship Temp:	Ambient
Storage:	-20°C		

Application Notes

Description/Data:

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

References:

- 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_κB 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

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