



## Carnosic Acid

## Data Sheet

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