PRODUCT INFORMATION



Octahydrocurcumin

Item No. 33686

CAS Registry No.:	36062-07-4
Formal Name:	1,7 <i>-bis</i> (4-hydroxy-3-
	methoxyphenyl)-3,5-heptanediol
Synonyms:	Hexahydrobisdemethoxycurcumin, но,он
	Hexahydrocurcuminol
MF:	C ₂₁ H ₂₈ O ₆
FW:	376.4
Purity:	≥95%
Supplied as:	A solution in ethanol OH OH
Storage:	-80°C
Stability:	≥2 years
Item Origin:	Synthetic
Information represents	the product specifications. Batch specific analytical results are provided on each certificate of analysis

Laboratory Procedures

Octahydrocurcumin is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Octahydrocurcumin is soluble in the organic solvent methanol at a concentration of approximately 10 mg/ml.

Description

Octahydrocurcumin is an active metabolite of curcumin (Item Nos. 81025 | 81025.1) that has diverse biological activities.¹⁻⁴ It scavenges DPPH radicals in a cell-free assay (IC₅₀ = 12.3 μ M).¹ Octahydrocurcumin (6.25 μ M) inhibits LPS-induced increases in inducible nitric oxide synthase (iNOS) and COX-2 levels, production of nitric oxide (NO), and nuclear translocation of NF-κB in RAW 264.7 cells.² It is active against the bacteria B. subtilis, K. pneumoniae, E. coli, E. aerogenes, P. aeruginosa, and S. aureus, as well as C. albicans, in disc assays.³ Octahydrocurcumin (5, 10, and 20 mg/kg) increases survival, reduces tumor weight, and induces tumor cell apoptosis in an H22 murine hepatocellular carcinoma model.⁴

References

- 1. Deters, M., Knochenwefel, H., Lindhorst, D., et al. Different curcuminoids inhibit T-lymphocyte proliferation independently of their radical scavenging activities. Pharm. Res. 25(8), 1822-1827 (2008).
- 2. Zhao, F., Gong, Y., Hu, Y., et al. Curcumin and its major metabolites inhibit the inflammatory response induced by lipopolysaccharide: translocation of nuclear factor- κ B as potential target. Mol. Med. Rep. 11(4), 3087-3093 (2015).
- 3. Singh, R.P. and Jain, D.A. Antimicrobial activity of hydrogenated derivatives of curcumin. Pharm. Res. 5(7), 3650-3653 (2012).
- 4. Zhang, Z., Luo, D., Xie, J., et al. Octahydrocurcumin, a final hydrogenated metabolite of curcumin, possesses superior anti-tumor activity through induction of cellular apoptosis. Food Funct. 9(4), 2005-2014 (2018).

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

SAFFTY 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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