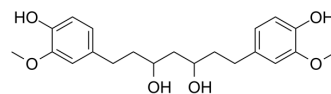


Octahydrocurcumin

Cat. No.:	HY-N0894												
CAS No.:	36062-07-4												
Molecular Formula:	C ₂₁ H ₂₈ O ₆												
Molecular Weight:	376.44												
Target:	Reactive Oxygen Species												
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB												
Storage:	<table border="0"> <tr> <td>Pure form</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table>	Pure form	-20°C	3 years		4°C	2 years	In solvent	-80°C	6 months		-20°C	1 month
Pure form	-20°C	3 years											
	4°C	2 years											
In solvent	-80°C	6 months											
	-20°C	1 month											



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (265.65 mM; Need ultrasonic)
Ethanol : 10 mg/mL (26.56 mM; Need ultrasonic)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.6565 mL	13.2823 mL	26.5647 mL
	5 mM	0.5313 mL	2.6565 mL	5.3129 mL
	10 mM	0.2656 mL	1.3282 mL	2.6565 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 3.75 mg/mL (9.96 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 3.75 mg/mL (9.96 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 3.75 mg/mL (9.96 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Octahydrocurcumin is a hydrogenated derivatives of curcumin; metabolite of curcumin. IC50 value: Target: OKT3-induced PBMC proliferation was inhibited by octahydrocurcumin with IC50 of 82 μM. The investigated substances with the strongest effect on radical scavenging were tetrahydro-, hexahydro-, and octahydrocurcumin with IC50 values of 10.0, 11.7, and 12.3 microM, respectively [1]. curcumin and tetrahydrocurcumin significantly inhibited the release of prominent cytokines, including tumor necrosis factor α (TNF α) and interleukin 6 (IL 6); however, hexahydrocurcumin and octahydrocurcumin did not significantly alter cytokine release [2]. Hydrogenated derivatives of curcumin exhibited stronger DPPH scavenging

activity compared to curcumin and a reference antioxidant, trolox. The scavenging activity significantly decreased in the order THC>HHC=OHC>trolox>curcumin>Dmc>>>Bdmc [3].

REFERENCES

- [1]. Deters M, et al. Different curcuminoids inhibit T-lymphocyte proliferation independently of their radical scavenging activities. *Pharm Res.* 2008 Aug;25(8):1822-7.
- [2]. Zhao F, 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.* 2015 Apr;11(4):3087-93.
- [3]. Somparn P, et al. Comparative antioxidant activities of curcumin and its demethoxy and hydrogenated derivatives. *Biol Pharm Bull.* 2007 Jan;30(1):74-8.
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Caution: Product has not been fully validated for medical applications. For research use only.

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