Octahydrocurcumin

Cat. No.: HY-N0894

CAS No.: 36062-07-4

Molecular Formula: $C_{21}H_{28}O_6$

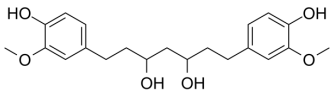
Molecular Weight: 376.44

Target: Reactive Oxygen Species

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB

Storage:

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)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
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

1. 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
2. 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
3. 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 uM. 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-κB 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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA