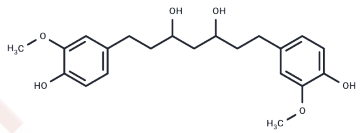
Data Sheet (Cat.No.T3S1692)

TargetMol

Octahydrocurcumin

Chemical Properties



CAS No. : 36062-07-4

Formula: C21H28O6

Molecular Weight: 376.44

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Octahydrocurcumin has antioxidant and and anti-inflammatory activities, it can inhibit the lipopolysaccharide (LPS)-induced inflammatory response via the mechanism of inhibiting NF-kB translocation to the nucleus. Octahydrocurcumin exhibits potent cytotoxic effect (IC50 =19.46 ug/mL) and shows high antimicrobial activity.
Targets(IC50)	Anti-infection,NF-κB,Reactive Oxygen Species,ROS
In vitro	OKT3-induced PBMC proliferation was inhibited by curcumin, isocurcumin, bisdesmethoxy-, diacetyl-, tetrahydro-, hexahydro-, and octahydrocurcumin as well as by vanillin, ferulic acid, and dihydroferulic acid with IC50-values of 2.8, 2.8, 6.4, 1.0, 25, 38, 82, 729, 457, and >1,000?μM, respectively. 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?μM, respectively. IC50-values of dihydroferulic acid, ferulic acid, and curcumin were 19.5, 37, and 40?μM. The substances with the lowest radical scavenging activities were vanillin, isocurcumin, diacetylcurcumin, and bisdesmethoxycurcumin with IC50?values higher than 100?μM each[1].

Solubility Information

Solubility	Ethanol: 10 mg/mL (26.56 mM),Sonication is recommended. DMSO: 150 mg/mL (398.47 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (8.77 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0531 mL	0.2656 mL	0.5313 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Different Curcuminoids Inhibit T-Lymphocyte Proliferation Independently of Their Radical Scavenging Activities. Pharmaceutical Research,2008, 25,(8):1822-7.
Comparative antioxidant activities of curcumin and its demethoxy and hydrogenated derivatives. Biol.Pharm. Bull., 2007, 30(1):74-8.