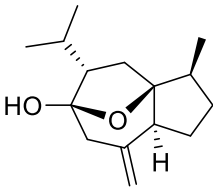


# Product data sheet



MedKoo Cat#: 407874 Name: Curcumol CAS#: 4871-97-0 Chemical Formula: C <sub>15</sub> H <sub>24</sub> O <sub>2</sub> Exact Mass: 236.1776 Molecular Weight: 236.355	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

## 1. Product description:

Curcumol, isolated from the traditional medical plant *Rhizoma Curcuma*, is the bioactive component of Zedoary oil, whose potential anti-tumor effect has attracted considerable attention in recent years. Curcumol inhibits the proliferation of gastric adenocarcinoma MGC-803 cells via downregulation of IDH1. Curcumol triggers apoptosis of p53 mutant triple-negative human breast cancer MDA-MB 231 cells via activation of p73 and PUMA. Curcumol induces cell cycle arrest in colon cancer cells via reactive oxygen species and Akt/ GSK3β/cyclin D1 pathway. Curcumol Promotes Vascular Endothelial Growth Factor (VEGF)-Mediated Diabetic Wound Healing in Streptozotocin-Induced Hyperglycemic Rats.

## 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

## 3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	55.67	235.54
DMF	20.0	84.62
Ethanol	28.5	120.58

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	4.23 mL	21.15 mL	42.31 mL
5 mM	0.85 mL	4.23 mL	8.46 mL
10 mM	0.42 mL	2.12 mL	4.23 mL
50 mM	0.08 mL	0.42 mL	0.85 mL

## 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

## 6. Recommended literature which reported protocols for in vitro and in vivo study

### In vitro study

1. Qi X, Song A, Ma M, Wang P, Zhang X, Lu C, Zhang J, Zheng S, Jin H. Curcumol inhibits ferritinophagy to restrain hepatocyte senescence through YAP/NCOA4 in non-alcoholic fatty liver disease. *Cell Prolif.* 2021 Aug 3:e13107. doi: 10.1111/cpr.13107. Epub ahead of print. PMID: 34346124.
2. Lv M, Shao J, Jiang F, Liu J. Curcumol may alleviate psoriasis-like inflammation by inhibiting keratinocyte proliferation and inflammatory gene expression via JAK1/STAT3 signaling. *Aging (Albany NY).* 2021 Jul 27;13(14):18392-18403. doi: 10.18632/aging.203287. Epub 2021 Jul 27. PMID: 34314383.

### In vivo study

1. Zheng Y, Wang L, Wang JH, Liu LL, Zhao TJ. Effect of Curcumol on NOD-Like Receptor Thermoprotein Domain 3 Inflammasomes in Liver Fibrosis of Mice. *Chin J Integr Med.* 2021 Jul 28. doi: 10.1007/s11655-021-3310-0. Epub ahead of print. PMID: 34319504.

# Product data sheet



2. Jia S, Guo P, Lu J, Huang X, Deng L, Jin Y, Zhao L, Fan X. Curcumol Ameliorates Lung Inflammation and Airway Remodeling via Inhibiting the Abnormal Activation of the Wnt/ $\beta$ -Catenin Pathway in Chronic Asthmatic Mice. *Drug Des Devel Ther.* 2021 Jun 21;15:2641-2651. doi: 10.2147/DDDT.S292642. PMID: 34188444; PMCID: PMC8232843.

## 7. Bioactivity

### Biological target:

---

Curcumol ((-)-Curcumol), a bioactive sesquiterpenoid, possesses numerous pharmacological activities like anticancer, antimicrobial, antifungal, antiviral, and antiinflammatory.

### In vitro activity

---

As shown in Figure 2A, exposure to PA for 24 h induced a marked injury to LO2 cells as assessed by cell viability assay, while pretreatment with curcumol resulted in an evident alleviation of PA-induced damage.

Reference: *Cell Prolif.* 2021 Aug 3:e13107. <https://pubmed.ncbi.nlm.nih.gov/34346124/>

### In vivo activity

---

The mice in the curcumol group had a significant decrease in liver function and liver fibers indices compared with the model group ( $P < 0.05$ ); RT-qPCR and Western blotting results reveal that, in the curcumol group, the mRNA and protein expression levels of NLRP3, IL-1  $\beta$ , Caspase 1 and gasdermin D decreased significantly compared with the model group ( $P < 0.05$ ); immunohistochemical results showed that in the curcumol group, the protein expression levels of NLRP3 and IL-1  $\beta$  decreased significantly compared with the model group ( $P < 0.05$ ).

Reference: *Chin J Integr Med.* 2021 Jul 28. <https://pubmed.ncbi.nlm.nih.gov/34319504/>

*Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.*