

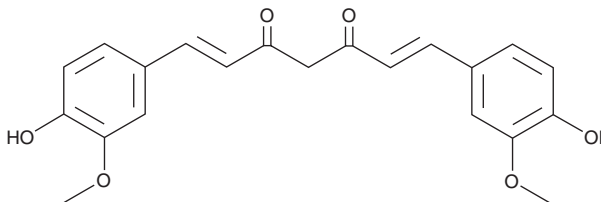
Product Information



Curcumin (technical grade)

Catalog No. 81025.1

CAS Registry No.: 458-37-7
Formal Name: 1,7-bis(4-hydroxy-3-methoxyphenyl)-1E,6E-heptadiene-3,5-dione
Synonyms: Indian Saffron, Turmeric yellow
MF: C₂₁H₂₀O₆
FW: 368.4
Purity: ≥65%
Stability: ≥2 years at room temperature
Supplied as: An orange crystalline solid
UV/Vis.: λ_{max}: 427 nm ε: 56,700



Laboratory Procedures

For long term storage, we suggest that Curcumin be stored as supplied at room temperature. It should be stable for at least two years. Cayman also supplies a high purity (>90%) formulation of curcumin (Catalog No. 81025).

Curcumin is supplied as a crystalline solid. A stock solution may be made by dissolving the curcumin in an organic solvent. Curcumin is soluble in organic solvents such as acetone, ethanol, DMSO, and dimethyl formamide. The solubility of curcumin in these solvents is approximately 1 mg/ml, and in acetone it is at least 20 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. A control using the solvent in the absence of Curcumin will address this potential variable. Organic solvent-free aqueous solutions of curcumin are difficult to prepare, and it may precipitate at concentrations greater than 0.1 mg/ml, depending on the pH of the aqueous solution. Its solubility is greatly increased in basic solutions. can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of curcumin in 0.1 M NaOH is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than 12 hours.

Curcumin is an extract of turmeric root with antioxidant, anti-tumor, and anti-inflammatory properties. Curcumin inhibits the induction of NOS in macrophages.¹⁻³

References

1. Brouet, I. and Ohshima, H. Curcumin, an anti-tumor promoter and anti-inflammatory agent, inhibits induction of nitric oxide synthase in activated macrophages. *Biochem. Biophys. Res. Commun.* **206**, 533-540 (1995).
2. Conney, A.H., Lysz, T., Ferraro, T., *et al.* Inhibitory effect of curcumin and some related dietary compounds on tumor promotion and arachidonic acid metabolism in mouse skin. *Adv. Enzyme Regul.* **31**, 385-396 (1991).
3. Tanaka, T., Makita, H., Ohnishi, M., *et al.* Chemoprevention of 4-nitroquinoline 1-oxide-induced oral carcinogenesis by dietary curcumin and hesperidin: Comparison with the protective effect of β-carotene. *Cancer Res.* **54**, 4653-4659 (1994).

Related Product

Curcumin - Cat. No. 81025

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery.**

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Copyright Cayman Chemical Company, 02/26/2010

Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com