Product Information

Curcumin (technical grade)
Item 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: λmax: 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.¹³

References


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/81025.1

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

The 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.

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