



LKT Laboratories, Inc.

Curcumin, high purity

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Product Information

Product ID C8070
CAS No. 458-37-7
Chemical Name (1E,6E)-1,7-Bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione

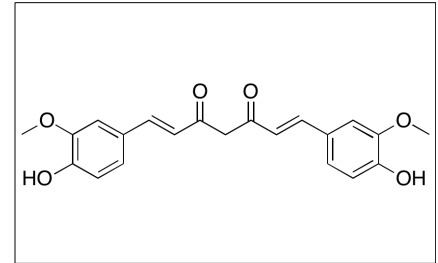
Synonym Turmeric yellow

Formula C₂₁H₂₀O₆
Formula Wt. 368.38
Melting Point 183°C
Purity ≥98%
Solubility Insoluble in water. Soluble in ethanol, DMSO.

Store Temp Ambient

Ship Temp Ambient

Description Curcumin is an active component found in turmeric, a member of the ginger family. Curcumin displays a wide variety of health benefits, including antioxidative, anticancer chemotherapeutic, neuroprotective, antifungal, antibacterial, and anti-atherosclerotic activities. In an animal model of running-induced oxidative damage, curcumin decreases NADPH-oxidase mRNA and hydrogen peroxide levels, decreasing oxidative stress. Curcumin increases levels of APOBEC1, increasing beneficial ApoB-48 and decreasing harmful ApoB-100, facilitating increased clearance of lipid particles from plasma in vitro. In cellular models of cancer, curcumin activates mammalian sterile 20-like kinase 1 (MST1), activating JKN and inducing apoptosis. In cellular models of glioma, curcumin downregulates expression of Shh, Smo, GLI1, cyclin D1, and Bcl-2, inhibiting proliferation and migration and increasing apoptosis; in related animal models, curcumin decreases tumor volume and prolongs survival. In an animal model of Alzheimer's disease utilizing the Morris water maze, curcumin rescues cognitive deficits by inhibiting collapsing response mediator protein 2 (CRMP2) and protecting against amyloid-B (AB)-induced hippocampal damage. This compound inhibits fMLP- and LPS-induced suppression of neutrophil apoptosis by preventing activation of NF-κB and decreasing production of pro-inflammatory mediators such as IL-6, IL-8, MIP-1α, and MIP-1β. Curcumin also displays antibacterial and antifungal activities, inhibiting cell wall biosynthesis of *Candida albicans* in vitro.



Bulk quantities available upon request

Product ID	Size
C8070	10 mg
C8070	25 mg
C8070	100 mg

References Kawanishi N, Kato K, Takahashi M, et al. Curcumin attenuates oxidative stress following downhill running-induced muscle damage. *Biochem Biophys Res Commun.* 2013 Oct 30. [Epub ahead of print]. PMID: 24184481.

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Tian N, Li X, Luo Y, et al. Curcumin regulates the metabolism of low density lipoproteins by improving the C-to-U RNA editing efficiency of apolipoprotein B in primary rat hepatocytes. *Mol Med Rep.* 2013 Oct 24. [Epub ahead of print]. PMID: 24173373.

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Gunes H, Gulen D, Mutlu R, et al. Antibacterial effects of curcumin: an in vitro minimum inhibitory concentration study. *Toxicol Ind Health.* 2013 Oct 21. [Epub ahead of print]. PMID: 24097361.

Kumar A, Dhamgaye S, Maurya IK, et al. Curcumin targets cell wall integrity via calcineurin mediated signaling in *Candida*

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.