# PRODUCT INFORMATION

## Dimethylcurcumin

*Item No. 10008187*

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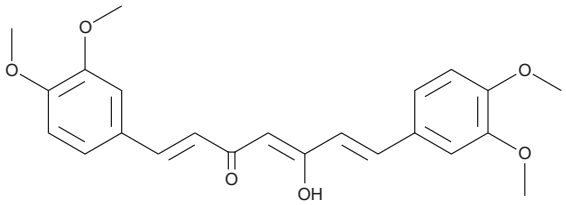
|---|---|
| **CAS Registry No.:** | 52328-98-0 |
| **Formal Name:** | (1E,4Z)-1,7-*bis*(3,4-dimethoxyphenyl)-5-hydroxy-1,4,6E-heptatrien-3-one |
| **MF:** | $C_{23}H_{24}O_6$ |
| **FW:** | 396.4 |
| **Purity:** | ≥95% |
| **UV/Vis.:** | $\lambda_{max}$: 264, 419 nm |
| **Supplied as:** | A crystalline solid |
| **Storage:** | -20°C |
| **Stability:** | ≥4 years |
| **Item Origin:** | Plant/ *Zingiber officinale* Rose |



*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

Dimethylcurcumin is supplied as a crystalline solid. A stock solution may be made by dissolving the dimethylcurcumin in the solvent of choice, which should be purged with an inert gas. Dimethylcurcumin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of dimethylcurcumin in these solvents is approximately 0.25, 5, and 10 mg/ml, respectively.

Dimethylcurcumin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, dimethylcurcumin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Dimethylcurcumin has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Dimethylcurcumin is a selective enhancer of androgen receptor (AR) degradation. By disrupting the interaction between AR and its coregulators, dimethylcurcumin directs the degradation of AR and reduces signaling through this receptor both in cultured cells and in animals.[1-3] In this way, dimethylcurcumin suppresses the growth of hepatocellular carcinoma (HCC) cells both in culture and in mice.[2] Dimethylcurcumin can be used to elucidate the consequences of signaling through AR in various cell types.[1,4,5]

### References


1. Lai, J.-J., Lai, K.-P., Chuang, K.-H., *et al.* Monocyte/macrophage androgen receptor suppresses cutaneous wound healing in mice by enhancing local TNF-α expression. *J. Clin. Invest.* **119(12)**, 3739-3751 (2009).
2. Ma, W.-L., Hsu, C.-L., Wu, M.-H., *et al.* Androgen receptor is a new potential therapeutic target for the treatment of hepatocellular carcinoma. *Gastroenterology* **135(3)**, 947-955 (2008).
3. Yang, Z., Chang, Y.-J., Yu, I.-C., *et al.* ASC-J9 ameliorates spinal and bulbar muscular atrophy phenotype *via* degradation of androgen receptor. *Nat. Med.* **13(3)**, 348-353 (2007).
4. Wen, S., Niu, Y., Lee, S.O., *et al.* Targeting fatty acid synthase with ASC-J9 suppresses proliferation and invasion of prostate cancer cells. *Mol. Carcinog.* **55(12)**, 2278-2290 (2016).
5. Xu, J., Lin, H., Li, G., *et al.* Sorafenib with ASC-J9® synergistically suppresses the HCC progression *via* altering the pSTAT3-CCL2/Bcl2 signals. *Int. J. Cancer* **140(3)**, 705-717 (2017).





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