

PRODUCT INFORMATION



FLLL31

Item No. 42233

CAS Registry No.: 52328-97-9

Formal Name: (1E,6E)-1,7-bis(3,4-dimethoxyphenyl)-4,4-dimethyl-1,6-heptadiene-3,5-dione
Synonym: Tetramethylcurcumin

MF: C₂₅H₂₈O₆

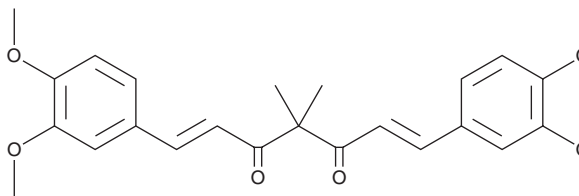
FW: 424.5

Purity: ≥98%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

FLLL31 is supplied as a solid. A stock solution may be made by dissolving the FLLL31 in the solvent of choice, which should be purged with an inert gas. FLLL31 is soluble (≥10 mg/ml) in DMSO.

Description

FLLL31 is a synthetic curcuminoid.^{1,2} It inhibits LPS-induced increases in nitrite, an indicator of nitric oxide (NO) production, TNF-α, IL-1β, and IL-6 levels in primary mouse macrophages when used at concentrations of 1, 5, or 10 μM.¹ FLLL31 (10 μM) reduces STAT3 DNA binding activity in MDA-MB-231 breast cancer cell nuclear extracts.² It decreases viability in MDA-MB-231 cells when used at a concentration of 5 μM in combination with doxorubicin (Item No. 15007). FLLL31 (50 mg/kg per day) reduces tumor volume and vasculature in a PANC-1 pancreatic cancer mouse xenograft model. It decreases ear volume in a rat model of croton oil-induced ear edema when administered at doses of 15 or 45 mg/kg.¹ FLLL31 (15 mg/kg) reduces the number of infiltrating neutrophils, lymphocytes, and macrophages in bronchoalveolar lavage fluid (BALF) in a mouse model of dust mite- and ragweed-induced acute airway inflammation.

References

1. Yuan, S., Cao, S., Jiang, R., *et al.* FLLL31, a derivative of curcumin, attenuates airway inflammation in a multi-allergen challenged mouse model. *Int. Immunopharmacol.* **21(1)**, 128-136 (2014).
2. Lin, L., Hutzen, B., Zuo, M., *et al.* Novel STAT3 phosphorylation inhibitors exhibit potent growth-suppressive activity in pancreatic and breast cancer cells. *Cancer Res.* **70(6)**, 2445-2454 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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