

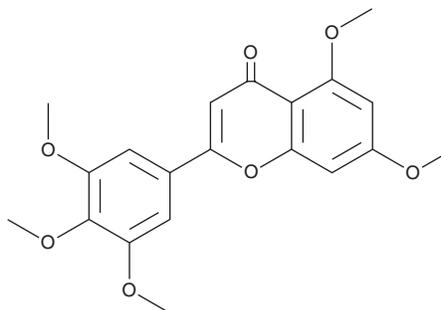
# PRODUCT INFORMATION



## 5,7,3',4',5'-Pentamethoxyflavone

Item No. 39820

**CAS Registry No.:** 53350-26-8  
**Formal Name:** 5,7-dimethoxy-2-(3,4,5-trimethoxyphenyl)-4H-1-benzopyran-4-one  
**Synonyms:** 3',4',5',5,7-Pentamethoxyflavone, 5,7,3',4',5'-PMF  
**MF:** C<sub>20</sub>H<sub>20</sub>O<sub>7</sub>  
**FW:** 372.4  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Natural/Source unknown



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

### Laboratory Procedures

5,7,3',4',5'-Pentamethoxyflavone is supplied as a solid. A stock solution may be made by dissolving the 5,7,3',4',5'-pentamethoxyflavone in the solvent of choice, which should be purged with an inert gas. 5,7,3',4',5'-Pentamethoxyflavone is soluble in chloroform and methanol.

### Description

5,7,3',4',5'-Pentamethoxyflavone is a flavonoid that has been found in *M. paniculata* and has diverse biological activities.<sup>1-4</sup> It inhibits pancreatic lipase in a cell-free assay and reduces lipid accumulation in 3T3-L1 adipocytes in a concentration-dependent manner.<sup>1</sup> 5,7,3',4',5'-Pentamethoxyflavone inhibits transactivation of nuclear factor erythroid 2-related factor 2 (Nrf2) in a reporter assay using HEK293T cells when used at concentrations of 10, 25, or 50 μM.<sup>2</sup> It inhibits LPS-induced nitric oxide (NO) production in RAW 264.7 macrophages and GES-1 cells.<sup>3</sup> 5,7,3',4',5'-Pentamethoxyflavone (25 μM) sensitizes cisplatin-resistant A549 non-small cell lung cancer (NSCLC) cells to the DNA-crosslinking agent cisplatin (Item No. 13119).<sup>2</sup> *In vivo*, 5,7,3',4',5'-pentamethoxyflavone (5 mg/kg) decreases blood glucose levels and renal fibrosis in a rat model of diabetes induced by streptozotocin (STZ; Item No. 13104).<sup>4</sup>

### References

- Ahmad, B., Friar, E.P., Taylor, E., *et al.* Anti-pancreatic lipase and anti-adipogenic effects of 5,7,3',4',5'-pentamethoxy and 6,2',4'-trimethoxy flavone - an *in vitro* study. *Eur. J. Pharmacol.* **938**:175445, (2023).
- Hou, X., Bai, X., Gou, X., *et al.* 3',4',5',5,7-Pentamethoxyflavone sensitizes cisplatin-resistant A549 cells to cisplatin by inhibition of Nrf2 pathway. *Mol. Cells* **38**(5), 396-401 (2015).
- Wu, J., Liu, K., and Shi, X. The anti-inflammatory activity of several flavonoids isolated from *Murraya paniculata* on murine macrophage cell line and gastric epithelial cell (GES-1). *Pharm. Biol.* **54**(5), 868-881 (2016).
- Li, J., Huang, X., He, K., *et al.* The kidney antifibrotic effects of 5,7,3',4',5'-pentamethoxyflavone from *Bauhinia championii* in streptozotocin-induced diabetic rats: *In vivo* and *in vitro* experiments. *Pharm. Biol.* **61**(1), 938-948 (2023).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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