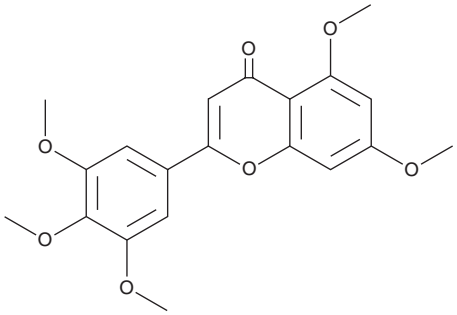
PRODUCT INFORMATION

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:	$C_{20}H_{20}O_7$
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.[1-4] It inhibits pancreatic lipase in a cell-free assay and reduces lipid accumulation in 3T3-L1 adipocytes in a concentration-dependent manner.[1] 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.[2] It inhibits LPS-induced nitric oxide (NO) production in RAW 264.7 macrophages and GES-1 cells.[3] 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).[2] *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).[4]

References

1. 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).
2. 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).
3. 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).
4. 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).

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