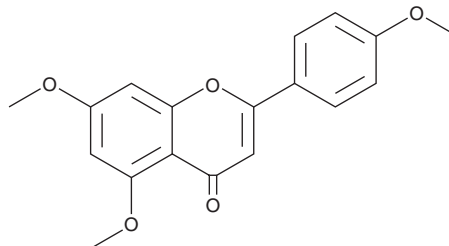


# PRODUCT INFORMATION

## 4',5,7-Trimethoxyflavone

Item No. 40271

**CAS Registry No.:** 5631-70-9  
**Formal Name:** 5,7-dimethoxy-2-(4-methoxyphenyl)-4H-1-benzopyran-4-one  
**Synonyms:** 5,7,4'-Trimethoxyflavone, Trimethylapigenin, Tri-O-methylapigenin  
**MF:** C<sub>18</sub>H<sub>16</sub>O<sub>5</sub>  
**FW:** 312.3  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Synthetic



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

### Laboratory Procedures

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

### Description

4',5,7-Trimethoxyflavone is a flavonoid that has been found in *K. parviflora* and has diverse biological activities.<sup>1-3</sup> It inhibits acetylcholinesterase (AChE) and butyrylcholinesterase (BChE) by 47.1 and 46.2%, respectively, in a cell-free assay when used at a concentration of 0.1 mg/ml.<sup>1</sup> 4',5,7-Trimethoxyflavone (1 and 10 μM) scavenges radicals in a Trolox equivalent antioxidant capacity (TEAC) assay.<sup>2</sup> It inhibits RANKL-induced osteoclastic differentiation of RAW 264.7 cells when used at a concentration of 10 μM. 4',5,7-Trimethoxyflavone stimulates chloride secretion in Calu-3 human airway epithelial cells, which endogenously express cystic fibrosis transmembrane conductance regulator (CFTR) as their major apical chloride channel.<sup>3</sup>

### References

1. Sawasdee, P., Sabphon, C., Sitthiwongwanit, D., *et al.* Anticholinesterase activity of 7-methoxyflavones isolated from *Kaempferia parviflora*. *Phytother. Res.* **23**(12), 1792-1794 (2009).
2. Thao, N.P., Luyen, B.T.T., Lee, S.H., *et al.* Anti-osteoporotic and antioxidant activities by rhizomes of *Kaempferia parviflora* Wall. ex Baker. *Nat. Prod. Sci.* **22**(1), 13-19 (2016).
3. Fischer, H. and Illek, B. Activation of the CFTR Cl<sup>-</sup> channel by trimethoxyflavone in vitro and in vivo. *Cell. Physiol. Biochem.* **22**(5-6), 685-692 (2008).

#### 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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