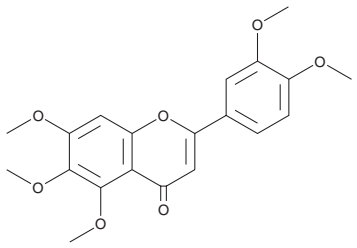
PRODUCT INFORMATION

Sinensetin

Item No. 19751

CAS Registry No.:	2306-27-6
Formal Name:	2-(3,4-dimethoxyphenyl)-5,6,7-trimethoxy-4H-1-benzopyran-4-one
Synonym:	Pedalitin Permethyl ether
MF:	$C_{20}H_{20}O_7$
FW:	372.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 215, 241, 327 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

Sinensetin is supplied as a crystalline solid. A stock solution may be made by dissolving the sinensetin in the solvent of choice. Sinensetin is soluble in the organic solvent dimethyl formamide, which should be purged with an inert gas, at a concentration of approximately 0.5 mg/ml.

Sinensetin is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Sinensetin is a polymethoxylated flavone that is present in the Southeast Asian medical plant *O. stamineus*, as well as in orange oil. It has been shown to enhance adipogenesis and lipolysis by increasing cAMP levels in 3T3-L1 cells.[1] Sinensetin is also reported to inhibit α-glucosidase and α-amylase activity *in vitro*, indicating its potential usefulness in the control of glucose absorption.[2] Additionally, sinensetin has been shown to suppress the expression of genes associated with inflammation by regulating IκBα protein levels in LPS-activated macrophages.[3]

References

1. Kang, S. I., Shin, H. S., and Kim, S. J., Sinensetin enhances adipogenesis and lipolysis by increasing cyclic adenosine monophosphate levels in 3T3-L1 adipocytes. *Bio. Pharm. Bull.* **38(4)**, 552-558 (2015).
2. Mohamed, E. A., Ahmad, M., Ang, L. F., *et al.* Evaluation of α-glucosidase inhibitory effect of 50% ethanolic standardized extract of *Orthosiphon stamineus benth* in normal and streptozotocin-induced diabetic rats. *Evid. Based Complement. Alternat. Med.* 2015:754931.
3. Shin, H. S., Kang, S. I., Yoon, S. A., *et al.* Sinensetin attenuates LPS-induced inflammation by regulating the protein level of IκB-α. *Biosci. Biotechnol. Biochem.* **76(4)**, 847-849 (2012).

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