

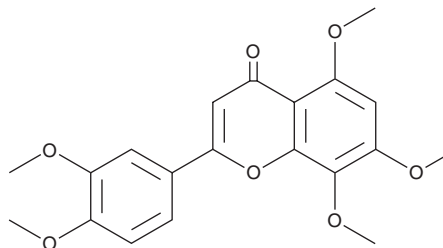
PRODUCT INFORMATION



Isosinensetin

Item No. 36009

CAS Registry No.: 17290-70-9
Formal Name: 2-(3,4-dimethoxyphenyl)-5,7,8-trimethoxy-4H-1-benzopyran-4-one
Synonym: 6-Demethoxynobiletin
MF: C₂₀H₂₀O₇
FW: 372.4
Purity: ≥98%
UV/Vis.: λ_{max}: 248, 270, 339 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Citrus reticulata* Blanco



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

Laboratory Procedures

Isosinensetin is supplied as a solid. A stock solution may be made by dissolving the isosinensetin in the solvent of choice, which should be purged with an inert gas. Isosinensetin is soluble in acetone, chloroform, dichloromethane, DMSO, and ethyl acetate.

Description

Isosinensetin is a polymethoxylated flavone that has been found in *C. reticulata* and has anticancer and anti-inflammatory activities.¹⁻³ It inhibits P-glycoprotein (P-gp; IC₅₀ = 4.2 μM) and increases the cytotoxicity of paraquat in MDR1-MDCKII cells and paclitaxel (Item No. 10461) in MX-1 breast and paclitaxel-resistant MX-1/T cancer cells.¹ Isosinensetin inhibits the proliferation of A549 lung, HL-60 leukemia, MCF-7 breast, and HO-8910 ovarian cancer cells (IC₅₀s = 23.6, 23.8, 15.1, and 12.5 μM, respectively).² It prevents decreases in cell viability and inhibits increases in IL-1β, TNF-α, and IL-6 levels and the production of reactive oxygen species (ROS) induced by fine particulate matter less than or equal to 2.5 μm (PM_{2.5}) in 16HBE bronchial epithelial cells when used at a concentration of 80 μg/ml.³

References

1. Bai, J., Zhao, S., Fan, X., *et al.* Inhibitory effects of flavonoids on P-glycoprotein in vitro and in vivo: Food/herb-drug interactions and structure-activity relationships. *Toxicol. Appl. Pharmacol.* **369**, 49-59 (2019).
2. Du, Q. and Chen, H. The methoxyflavones in *Citrus reticulata* Blanco cv. *ponkan* and their antiproliferative activity against cancer cells. *Food Chem.* **119(2)**, 567-572 (2010).
3. Zou, Y., Li, S., Li, X., *et al.* Isosinensetin alleviates the injury of human bronchial epithelial cells induced by PM_{2.5}. *Exp. Ther. Med.* **22(6)**, 1435 (2021).

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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