

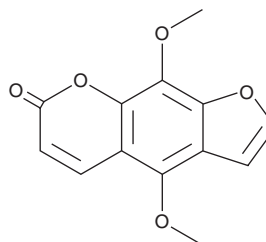
PRODUCT INFORMATION



Isopimpinellin

Item No. 34642

CAS Registry No.: 482-27-9
Formal Name: 4,9-dimethoxy-7H-furo[3,2-g][1]benzopyran-7-one
Synonyms: NSC 217988, NSC 401288
MF: C₁₃H₁₀O₅
FW: 246.2
Purity: ≥98%
UV/Vis.: λ_{max}: 223, 241, 249, 272, 312 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Saxifraga stolonifera* Curt.



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

Laboratory Procedures

Isopimpinellin is supplied as a solid. A stock solution may be made by dissolving the isopimpinellin in the solvent of choice, which should be purged with an inert gas. Isopimpinellin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of isopimpinellin in these solvents is approximately 1, 20, and 30 mg/ml, respectively.

Isopimpinellin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, isopimpinellin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Isopimpinellin has a solubility of approximately 0.11 mg/ml in a 1:8 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Isopimpinellin is a furanocoumarin that has been found in *H. persicum* and has diverse biological activities.¹⁻³ It inhibits lipid peroxidation in a cell-free assay.¹ Isopimpinellin (20 μM) prevents histamine release from, and activation of NF-κB in, RBL-2H3 cells.² It also decreases the secretion of TNF-α, IL-1β, and IL-4 from RBL-2H3 cells. Isopimpinellin prevents benzo[a]pyrene-DNA adduct formation in sensitivity to carcinogenesis (SENCAR) mice when administered at a dose of 70 mg/kg and reduces the number of papillomas initiated and promoted by 7,12-dimethylbenz[a]anthracene (DMBA; Item No. 30383) in SENCAR mice when administered at 30, 70, or 150 mg/kg.³

References

1. Souri, E., Farsam, H., Sarkheil, P., *et al.* Antioxidant activity of some furanocoumarins isolated from *Heracleum persicum*. *Pharm. Biol.* **42**(6), 396-399 (2004).
2. Li, D. and Wu, L. Coumarins from the roots of *Angelica dahurica* cause anti-allergic inflammation. *Exp. Ther. Med.* **14**(1), 874-880 (2017).
3. Kleiner, H.E., Vulimiri, S.V., Starost, M.F., *et al.* Oral administration of the citrus coumarin, isopimpinellin, blocks DNA adduct formation and skin tumor initiation by 7,12-dimethylbenz[a]anthracene in SENCAR mice. *Carcinogenesis* **23**(10), 1667-1675 (2002).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/22/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM