

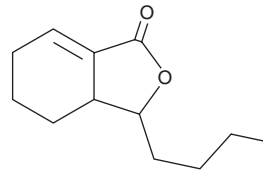
PRODUCT INFORMATION



Sedanolide

Item No. 17166

CAS Registry No.: 6415-59-4
Formal Name: 3-butyl-3a,4,5,6-tetrahydro-1(3H)-isobenzofuranone
MF: C₁₂H₁₈O₂
FW: 194.3
Purity: ≥95%
UV/Vis.: λ_{max}: 219 nm
Supplied as: A crystalline 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

Sedanolide is supplied as a crystalline solid. A stock solution may be made by dissolving the sedanolide in the solvent of choice. Sedanolide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of sedanolide in ethanol is approximately 30 mg/ml and approximately 5 mg/ml in DMSO and DMF.

Sedanolide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, sedanolide should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Sedanolide has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Sedanolide is a natural phthalide first isolated from seed oil of the *Umbelliferae* family, including celery. It induces the expression of glutathione S-transferase and reduces chemical-induced carcinogenesis in mice.¹ Sedanolide inhibits cyclooxygenases-1 and -2 at 250 pg/ml and blocks topoisomerase-I and-II activity at 100 µg/ml.² It is mosquitocidal, nematicidal, and antifungal but shows no cytotoxicity against normal mammalian cells.^{3,4}

References

1. Zheng, C.Q., Kenney, P.M., Zhang, J., *et al.* Chemoprevention of benzo[a]pyrene-induced forestomach cancer in mice by natural phthalides from celery seed oil. *Nutr. Cancer* **19(1)**, 77-86 (1993).
2. Momin, R.A. and Nair, M.G. Antioxidant, cyclooxygenase and topoisomerase inhibitory compounds from *Apium graveolens* Linn. seeds. *Phytomedicine* **9(4)**, 312-318 (2002).
3. Momin, R.A. and Nair, M.G. Mosquitocidal, nematicidal, and antifungal compounds from *Apium graveolens* L. seeds. *J. Agric. Food Chem.* **49(1)**, 142-145 (2001).
4. Woods, J.A., Jewell, C., and O'Brien, N.M. Sedanolide, a natural phthalide from celery seed oil: Effect on hydrogen peroxide and tert-butyl hydroperoxide-induced toxicity in HepG2 and CaCo-2 human cell lines. *In Vitro. Mol. Toxicol.* **14(3)**, 233-240 (2001).

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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