

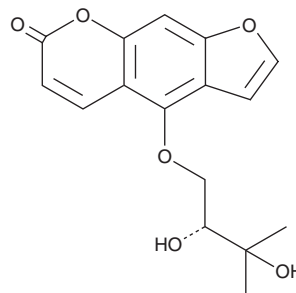
# PRODUCT INFORMATION



## (+)-Oxypeucedanin hydrate

Item No. 33841

**CAS Registry No.:** 2643-85-8  
**Formal Name:** 4-[(2R)-2,3-dihydroxy-3-methylbutoxy]-7H-furo[3,2-g][1]benzopyran-7-one  
**Synonyms:** (+)-Aviprin, Prangol, Prangolarin hydrate  
**MF:** C<sub>16</sub>H<sub>16</sub>O<sub>6</sub>  
**FW:** 304.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 222, 251, 260, 269, 310 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Plant/*Angelica dahurica*



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

### Laboratory Procedures

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

(+)-Oxypeucedanin hydrate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (+)-oxypeucedanin hydrate should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. (+)-Oxypeucedanin hydrate has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

(+)-Oxypeucedanin hydrate is a furanocoumarin that has been found in *A. japonica* and has diverse biological activities.<sup>1-3</sup> It is active against the Gram-positive bacteria *B. cereus*, *S. aureus*, and *S. faecalis* (MICs = 9.76-78.12 µg/ml), the Gram-negative bacteria *E. coli*, *S. dysenteriae*, *P. aeruginosa*, *K. pneumoniae*, and *S. typhi* (MICs = 39.06-625 µg/ml), and the fungi *C. albicans* and *M. audouinii* (MIC = 39.06 µg/ml for both).<sup>2</sup> (+)-Oxypeucedanin hydrate inhibits proliferation of human MK-1 gastric and HeLa cervical cancer cells, as well as murine B16/F10 melanoma cells (EC<sub>50</sub>s = 47.2, 80.3, and 42 µg/ml, respectively).<sup>1</sup> It also inhibits proliferation of sensitive and multidrug-resistant murine L5178Y lymphoma cells (IC<sub>50</sub>s = 41.96 and 60.58 µM, respectively).<sup>3</sup>

### References

1. Fujioka, T., Furumi, K., Fuhii, H., *et al.* Antiproliferative constituents from Umbelliferae plants. V. A new furanocoumarin and falcariindiol furanocoumarin ethers from the root of *Angelica japonica*. *Chem. Pharm. Bull. (Tokyo)* **47**(1), 96-100 (1999).
2. Dongfack, M.D.J., Lallemand, M.-C., Kuete, V., *et al.* A new sphingolipid and furanocoumarins with antimicrobial activity from *Ficus exasperata*. *Chem. Pharm. Bull. (Tokyo)* **60**(8), 1072-1075 (2012).
3. Mottaghipisheh, J., Nové, M., Spengler, G., *et al.* Antiproliferative and cytotoxic activities of furocoumarins of *Ducrosia anethifolia*. *Pharm. Biol.* **56**(1), 658-664 (2018).

#### 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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#### 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