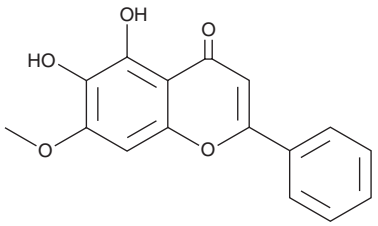
PRODUCT INFORMATION

Negletein

Item No. 38971

CAS Registry No.:	29550-13-8
Formal Name:	5,6-dihydroxy-7-methoxy-2-phenyl-4H-1-benzopyran-4-one
Synonyms:	5,6-Dihydroxy-7-methoxyflavone, 7-O-Methylbaicalein
MF:	$C_{16}H_{12}O_5$
FW:	284.3
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Scutellaria baicalensis* Georgi



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

Laboratory Procedures

Negletein is supplied as a solid. A stock solution may be made by dissolving the negletein in the solvent of choice, which should be purged with an inert gas. Negletein is slightly soluble in methanol and acetonitrile.

Negletein is slightly 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

Negletein is a flavonoid that has been found in *S. oblonga* and has diverse biological activities.[1-3] It inhibits biofilm formation by *S. aureus*, *B. subtilis*, *P. aeruginosa*, and *E. coli* when used at a concentration of 32 µg/ml.[1] Negletein induces cytotoxicity in SW460 and DLD-1 colorectal cancer cells (IC_{50}s = 29.41 and 30.93 µM, respectively) but not HT-29 colon cancer or HepG2 hepatocellular carcinoma cells (IC_{50}s = >40 µM for both).[4] It decreases LPS-induced nitric oxide (NO) production and secreted TNF-α and IL-1β levels in J774A.1 macrophages when used at a concentration of 0.01 µM.[2] Negletein (10 µM), alone and in combination with nerve growth factor (NGF), increases neurite outgrowths, levels of growth-associated protein 43 (GAP43) and decreases serum deprivation-induced death in PC12 adrenal medulla cells.[3]

References

1. Rajendran, N., Subramaniam, S., Christena, L.R., *et al.* Antimicrobial flavonoids isolated from Indian medicinal plant *Scutellaria oblonga* inhibit biofilms formed by common food pathogens. *Nat. Prod. Res.* **30(17)**, 2002-2006 (2016).
2. Singh, B., Sidiq, T., Joshi, P., *et al.* Anti-inflammatory and immunomodulatory flavones from *Actinocarya tibetica* Benth. *Nat. Prod. Res.* **27(23)**, 2227-2230 (2013).
3. Phan, C.-W., Sabaratnam, V., Bovicelli, P., *et al.* Negletein as a neuroprotectant enhances the action of nerve growth factor and induces neurite outgrowth in PC12 cells. *Biofactors* **42(6)**, 591-599 (2016).
4. Wang, S.-H., Chen, C.-H., Lo, C.-Y., *et al.* Synthesis and biological evaluation of novel 7-O-lipophilic substituted baicalein derivatives as potential anticancer agents. *Med. Chem. Comm.* **6**, 1864-1873 (2015).

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