

PRODUCT INFORMATION



Wogonoside

Item No. 29332

CAS Registry No.: 51059-44-0
Formal Name: 5-hydroxy-8-methoxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl β-D-glucopyranosiduronic acid

Synonyms: Wogonin 7-β-D-Glucuronide,
Wogonin 7-O-β-D-Glucuronide

MF: C₂₂H₂₀O₁₁

FW: 460.4

Purity: ≥98%

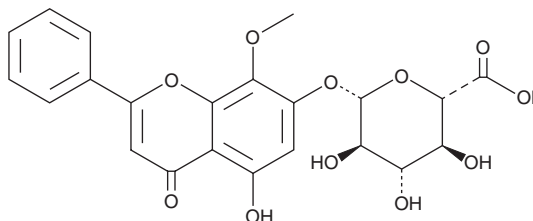
UV/Vis.: λ_{max}: 275 nm

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

Wogonoside is supplied as a solid. A stock solution may be made by dissolving the wogonoside in the solvent of choice, which should be purged with an inert gas. Wogonoside is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of wogonoside in these solvents is approximately 15 and 5 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of wogonoside can be prepared by directly dissolving the solid in aqueous buffers. The solubility of wogonoside in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Wogonoside is an active metabolite of wogonin (Item No. 14248) and a flavonoid that has been found in *S. baicalensis* and has anti-inflammatory and anticancer activities.¹⁻³ It decreases the levels of IL-1β, TNF-α, and IL-6 and inhibits the activation of NF-κB and the NOD-, LRR-, and pyrin domain-containing protein 3 (NLRP3) inflammasome in THP-1 cells differentiated with phorbol 12-myristate 13-acetate (PMA; Item No. 10008014).¹ Wogonoside (25 and 50 mg/kg) decreases colonic pathological damage and the activity of myeloperoxidase and inducible nitric oxide synthase (iNOS), as well as inhibits NF-κB and NLRP3 inflammasome activation in the colon in a mouse model of colitis induced by dextran sulfate sodium (Item No. 23250). It inhibits phosphorylation of the mammalian target of rapamycin (mTOR), as well as inhibits the growth of (IC₅₀ = 133.9 μM), and induces autophagy in, MDA-MB-231 breast cancer cells.² Wogonoside (50-100 μM) inhibits tube formation by human umbilical vein endothelial cells (HUVECs) and increases Wnt3a levels and β-catenin phosphorylation in MCF-7 cells and reduces tumor growth and angiogenesis in an MCF-7 mouse xenograft model when administered at a dose of 80 mg/kg.³

References

1. Sun, Y., Zhao, Y., Yao, J., et al. *Biochem. Pharmacol.* **94**(2), 142-154 (2015).
2. Sun, Y., Zou, H., Hu, C., et al. *Food. Chem. Toxicol.* **51**, 53-60 (2013).
3. Huang, Y., Zhao, K., Hu, Y., et al. *Mol. Carcinog.* **55**(11), 1598-1612 (2016).

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