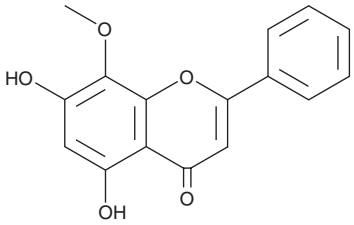
PRODUCT INFORMATION

Wogonin

Item No. 14248

CAS Registry No.:	632-85-9
Formal Name:	5,7-dihydroxy-8-methoxy-2-phenyl-4H-1-benzopyran-4-one
Synonym:	BRN 0287152
MF:	$C_{16}H_{12}O_5$
FW:	284.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 210, 275 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Wogonin is supplied as a crystalline solid. A stock solution may be made by dissolving the wogonin in the solvent of choice, which should be purged with an inert gas. Wogonin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of wogonin in ethanol is approximately 0.1 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Wogonin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, wogonin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Wogonin has a solubility of approximately 0.1 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Wogonin is an O-methylated flavonoid isolated from the root of the traditional Chinese herb *S. baicalensis* with anti-inflammatory, antioxidant, and neuroprotective activities.[1] At concentrations of 5-50 µM, wogonin inhibits inflammatory activation of cultured brain microglia by diminishing LPS-induced TNF-α, IL-1β, and nitric oxide production.[2] Wogonin at 75 µM demonstrates tumor therapeutic potential inducing sub-G_1 phase apoptosis through activation of caspase-3 activity in human osteocarcinoma cell lines.[3]

References

1. Huang, W.H., Chien, P.Y., Yang, C.H., *et al*. Novel synthesis of flavonoids of *Scutellaria baicalensis* GEORGI. *Chem. Pharm. Bull.* **51(3)**, 339-340 (2003).
2. Lee, H., Kim, Y.O., Kim, H., *et al*. Flavonoid wogonin from medicinal herb is neuroprotective by inhibiting inflammatory activation of microglia. *FASEB J.* **17(13)**, 1943-1944 (2003).
3. Lin, C.C., Kuo, C.L., Lee, M.H., *et al*. Wogonin triggers apoptosis in human osteosarcoma U-2 OS cells through the endoplasmic reticulum stress, mitochondrial dysfunction and caspase-3-dependent signaling pathways. *Int. J. Oncol.* **39(1)**, 217-224 (2011).

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