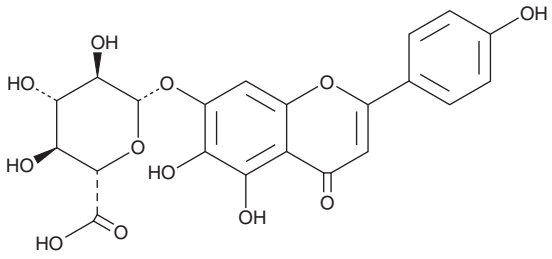
PRODUCT INFORMATION

Scutellarin

Item No. 27461

CAS Registry No.:	27740-01-8
Formal Name:	5,6-dihydroxy-2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl, β-D-glucopyranosiduronic acid
Synonym:	Scutellarein 7-O-β-D-glucuronide
MF:	$C_{21}H_{18}O_{12}$
FW:	462.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 284, 336 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Scutellaria baicalensis* leaves



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

Laboratory Procedures

Scutellarin is supplied as a crystalline solid. A stock solution may be made by dissolving the scutellarin in the solvent of choice, which should be purged with an inert gas. Scutellarin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of scutellarin in these solvents is approximately 15 and 20 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 scutellarin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of scutellarin in PBS, pH 7.2, is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Scutellarin is a flavone that has been found in *S. barbata* and has diverse biological activities, including anticancer, lipid lowering, antioxidative, and neurocognitive properties.[1-3] It inhibits proliferation of PC-9 and H1975 non-small cell lung cancer (NSCLC) cells in a concentration-dependent manner and induces apoptosis and autophagy when used at a concentration of 160 µM, effects that can be blocked by the autophagy inhibitor HCQ (Item No. 17911).[1] Scutellarin (30 and 60 mg/kg per day) reduces tumor growth in an H1975 mouse xenograft model. It decreases serum total cholesterol and LDL-cholesterol and increases HDL-cholesterol in a high-fat diet-induced mouse model of non-alcoholic fatty liver disease (NAFLD) when administered at doses of 25 and 50 mg/kg.[2] It decreases hepatic malondialdehyde (MDA), glutamic-oxalacetic transaminase (GOT), and glutamic-pyruvic transaminase (GPT) activity, increases catalase (CAT) and total antioxidative capacity (T-AOC) activity, and increases the hepatic expression of PPARγ, PGC-1α, and Nrf2 in the same model. Scutellarin (5, 25, and 50 mg/kg per day) also prevents deficits in spatial and novel object memory in rats in the Y maze and novel object recognition test, respectively.[3]

References

1. Sun, C., Li, C., Li, X., *et al. J. Cancer* **9(18)**, 3247-3256 (2018).
2. Zhang, X., Ji, R.R., Sun, H., *et al. Free Radic Res.* **52(2)**, 198-211 (2018).
3. Baluchnejadmojarad, T., Zinali, H., and Roghani, M. *Int. Immunopharmacol.* **54**, 311-319 (2018).

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