Natural Products



Scutellarin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Scutellarin

Catalog No.: CFN99112

Cas No.: 27740-01-8

Purity: > 98%

 $\textbf{M.F:} C_{21}H_{18}O_{12}$

M.W: 462.37

Physical Description: Yellow powder

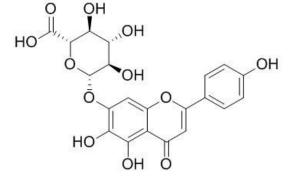
Synonyms:(2S,3S,4S,5R,6S)-6-[[5,6-dihydroxy-2-(4-hydroxyphenyl)-4-oxo-1-benzopyra n-7-yl]oxy]-3,4,5-trihydroxy-2-oxanecarboxylic acid.

[Intended Use]

- 1. Reference standards;
- 2. Pharmacological research;
- 3. Food and cosmetic research;
- 4. Synthetic precursor compounds;
- 5. Intermediates & Fine Chemicals;
- 6. Ingredient in supplements, beverages;
- 7. Others.

[Source]

The root of Scutellaria baicalensis Georgi.



[Biological Activity or Inhibitors]

Scutellarin attenuates H2O2-induced cytotoxicity, intracellular accumulation of ROS and Ca2+, lipid peroxidation, and loss of MMP and DNA, which may represent the cellular mechanisms for its neuroprotective action.^[1]

Nitric oxide (NO) production, which increased in early stages of neuron damage induced by hydrogen peroxide can be effectively inhibited by scutellarin, indicates that increase in NO production is mediated by constitutive NO synthase (cNOS).^[2]

Long-term administration of scutellarin improved the cardiac function of MI rats by inhibiting interstitial fibrosis, and the mechanisms may involve the suppression of pro-fibrotic cytokine TGF β 1 expression and inhibition of p38 MAPK and ERK1/2 phosphorylation.^[3]

Scutellarin has neuroprotection, the mechanism mediated by inhibition of microglial inflammatory activation.^[4]

Scutellarin has potent protective effects on superoxide-induced oxidative stress in rat cortical synaptosomes.^[5]

[Solvent]

Pyridine, DMSO, Ethanol, Methanol.

[HPLC Method]^[6]

Mobile phase: Acetonitrile – 40mM KH₂ PO₄ buffer (pH=2.5)=33:67.; Flow rate: 1.0 ml/min; Column temperature: 40 $^{\circ}$ C; The wave length of determination: 335 nm.

[Storage]

 $2\text{-}8\,^\circ\!\!\mathbb{C}$, Protected from air and light, refrigerate or freeze.

[References]

[1] Hong H, Liu G Q. Life Sci., 2004, 74(24):2959-73.

[2] Hong L, Yang X, Ren T, et al. Pharmacol. Res., 2005, 51(3):205-10.

[3] Pan Z W, Zhao W M, Zhang XY, et al. Brit. J. Pharmacol., 2011, 162(3):688–700.

[4] Wang S, Wang H, Guo H, et al. Neuroscience, 2011, 185(5):150-60.

[5] Hong L, Yang X L, Ying W, et al. Acta Pharmacol. Sin., 2003, 24(11):1113-7.

[6] Huang J, Li N, Yu Y, et al. J. Pharmaceut. Biomed., 2006, 40(2):465-71.

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