

Galangin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Galangin

Catalog No.: CFN98918

Cas No.: 548-83-4

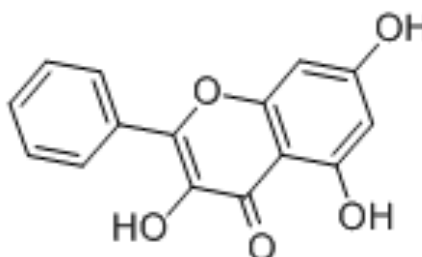
Purity: >=98%

M.F: C₁₅H₁₀O₅

M.W: 270.24

Physical Description: Yellow powder

Synonyms: 3,5,7-Trihydroxyflavone;3,5,7-Trihydroxy-2-phenyl-chromen-4-one.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

The rhizome of *Zingiber officinale* Roscoe.

[Biological Activity or Inhibitors]

Galangin, the major antimicrobial compound isolated from the shoots of *Helichrysum*

aureonitens, it shows significant antiviral activity against HSV-1 and CoxB1, limited activity against reovirus, and no antiviral activity against Ad31.^[1]

Galangin has anti-genotoxicity, it acts as a cancer chemopreventive agent candidate.^[2]

Galangin shows an inhibitory effect on acetylcholinesterase (AChE) activity with the IC₅₀ of 120 microM and an enzyme-flavonoid inhibition constant (K_i) of 74 microM, suggests that it could be potential candidates for further development of new drugs against Alzheimer's disease (AD).^[3]

Galangin induces apoptosis of hepatocellular carcinoma cells via the mitochondrial pathway.^[4]

Galangin has vasorelaxant effects, it reduces the contractility of rat aortic rings through an endothelium-dependent mechanism, involving NO, and also through an endothelium-independent mechanism, inhibiting calcium movements through cell membranes.^[5]

Galangin is effective as anti-proliferative, and apoptotic agent in Bcr-Abl expressing K562 and KCL22 cells and in imatinib mesylate resistant K562-R and KCL22-R cells; it increases the cytotoxic activity of imatinib mesylate in imatinib-sensitive and imatinib-resistant Bcr-Abl expressing leukemia cells, suggests that galangin is an interesting candidate for a combination therapy in the treatment of imatinib-resistant leukemias.^[6]

Galangin can down-regulate mast cell-derived allergic inflammatory reactions by blocking histamine release and expression of pro-inflammatory cytokines, in light of in vitro and in vivo anti-allergic inflammatory effects, it could be a beneficial anti-allergic inflammatory agent.^[7]

Galangin has anti-clastogenic effects against bleomycin-induced chromosomal aberrations in mouse spleen lymphocytes.^[8]

Galangin has antibacterial activity, the topoisomerase IV enzyme may therefore be implicated in the antibacterial mechanism of action of galangin.^[9]

Galangin has anti-inflammatory effects on lipopolysaccharide-activated macrophages via ERK and NF- κ B pathway regulation.^[10]

Galangin produces anti-obesity effects in cafeteria diet (CD)-fed rats, this may be

mediated through its pancreatic lipase inhibitory, hypolipidemic and antioxidant activities.^[11]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[12]

Mobile phase: Methanol- 0.4% Phosphoric acid H₂O=60:40 ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 360 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

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