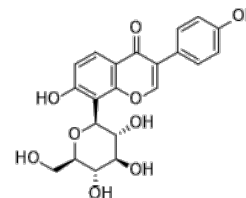


Product Name : Puerarin
Cat. No. : PC-27670
CAS No. : 3681-99-0
Molecular Formula : C₂₁H₂₀O₉
Molecular Weight : 416.38
Target : Heat Shock Protein (HSP)
Solubility : 10 mM in DMSO



Biological Activity

Puerarin is an isoflavone isolated from kudzu with multifaceted anticancer activity, also has lipid-lowering and reproductive-protective properties, binds and enhances the chaperone activity of GRP78, stabilizes steroidogenic acute regulatory protein (StAR) and upregulates its expression.

Puerarin also directly target binding to Dimethylarginine dimethylaminohydrolase 2 (DDAH II, DDAH2) and increase its expression and bioactivity.

Puerarin blocks transient outward K⁺ current and delayed rectifier K⁺ current in mice hippocampal CA1 neurons.

Puerarin reduces angiogenic effects of alcohol withdrawal or benzodiazepine inverse or 5-HT_{2C} agonists.

Puerarin shows anticancer mechanisms via modulating multiple signaling pathways, including nuclear factor-κB (NF-κB), extracellular signal-regulated kinase (ERK), Janus kinase 2/signal transducer and activator of transcription 3 (JAK2/STAT3), and Wnt signaling (Wnt), and targeting key molecules such as Caspases, Bcl-2-associated X protein (BAX), B-cell lymphoma-2 (BCL-2), matrix metalloproteinases (MMPs), and dual-specificity phosphatase 1 (DUSP1).

Puerarin has also been found to enhance the efficacy of conventional chemotherapeutic agents such as cisplatin and oxaliplatin, and to overcome drug resistance.

Pueraria root alleviates obesity-induced spermatogenic dysfunction by improving lipid metabolism, upregulating the expression of key testosterone enzymes, and promoting testosterone synthesis through the targeting of GRP78 by StAR expression.

References

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Caution: Product has not been fully validated for medical applications. Lab Use Only!

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