[**Product Information**]

**Name:** Icaritin  
**Catalog No.:** CFN98527  
**Cas No.:** 118525-40-9  
**Purity:** >=98%  
**M.F:** C_{21}H_{20}O_{6}  
**M.W:** 368.38  
**Physical Description:** Yellow powder  
**Synonyms:** 3,5,7-Trihydroxy-2-(4-methoxyphenyl)-8-(3-methyl-2-buten-1-yl)-4H-1-benzopyran-4-one;3,7-bis(2-hydroxyethyl)icaritin.

[**Intended Use**]

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

[**Source**]

The roots of *Epimedium brevicomu Maxim.*

[**Biological Activity or Inhibitors**]
Icarin, a principal flavonoid glycoside in Herba Epimedii, it can enhance the differentiation and proliferation of osteoblasts, and facilitate matrix calcification; meanwhile it inhibits osteoclastic differentiation in both osteoblast–preosteoclast coculture and osteoclast progenitor cell culture, and reduces the motility and bone resorption activity of isolated osteoclasts.\[^1\]

Icaritin and desmethylicaritin are novel phytoestrogens and that the estrogenic effects of icaritin and desmethylicaritin are mediated by the estrogen receptor, they have proliferation-stimulating effects in MCF-7 cells.\[^2\]

Icarin has promoting effect on cardiac differentiation, which is related to increasing and accelerating gene expression of α-cardiac MHC and MLC-2v, as well as regulating the cell cycles and inducing apoptosis. \[^3\]

Icaritin has osteoprotective potential, exerts dose-dependent effect on reducing incidence of steroid-associated ON with inhibition of both intravascular thrombosis and extravascular lipid-deposition; suppression of the up-regulated PPARgamma expression for extravascular adipogenesis of mesenchymal stem cells and protection from activated oxidative stress for intravascular endothelium injury are found to be involved in the underlying mechanisms.\[^4\]

Icaritin has a novel anticancer efficacy, which mediated selectively via induction of cell cycle arrest but not associated with estrogen receptors in PC-3 cells.\[^5\]

Icaritin has neuroprotective effect against the toxicity induced with Aβ 25-35 in primary cultured rat cortical neuronal cells, mitogen-activated protein kinase/extracellular signal-regulated kinase pathway may be involved in and partly contributed to the neuroprotective effects of icaritin.\[^6\]

Icaritin shows potent anti-leukemia activity on chronic myeloid leukemia in vitro and in vivo by regulating MAPK/ERK/JNK and JAK2/STAT3/AKT signalings.\[^7\]

[ Solvent ]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.
**[HPLC Method]**[8]

Mobile phase: Methanol -H2O=82:18;  
Flow rate: 1.0 ml/min;  
Column temperature: 30 ℃;  
The wavelength of determination: 270 nm.

**[Storage]**

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

**[References]**


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