[ Product Information ]

Name: Alpinetin
Catalog No.: CFN98489
Cas No.: 36052-37-6
Purity: > 95%
M.F: C_{16}H_{14}O_{4}
M.W: 270.3
Physical Description: Powder
Synonyms: 7-Hydroxy-5-methoxyflavanone.

[ Intended Use ]

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

[ Source ]

The fruits of Alpinia katsumadai.

[ Biological Activity or Inhibitors ]
Alpinetin is a type of novel plant flavonoid derived from Alpinia katsumadai Hayata, possesses strong anti-hepatoma effects, can suppress HepG2 cell proliferation and arrested cells in the G0/G1 phase by up-regulating the expression levels of p-MKK7, and the antitumor effect of Alpinetin could be reversed by inhibiting the expression of M KK7; suggests that M KK7 may be a putative target for molecular therapy against hepatoma and Alpinetin could serve as a potential agent for the development of hepatoma therapy.\[1\]

Alpinetin has antiproliferative effect in BxPC-3 pancreatic cancer cells possibly through the regulation of the Bcl-2 family and XIAP expression, release of cytochrome C and the activation of caspases, it may serve as a potential agent for the development of pancreatic cancer cell therapies.\[2\]

Alpinetin and cardamonin have vascular effects to relax rat mesenteric arteries through multiple mechanisms; they induce both endothelium-dependent and -independent relaxation, the former is likely mediated by nitric oxide whereas the latter is probably mediated through nonselective inhibition of Ca\(^{2+}\) influx and intracellular Ca\(^{2+}\) release and inhibition of the protein kinase C-dependent contractile mechanism.\[3\]

Alpinetin has anti-inflammatory properties, can activate PPAR-\(\gamma\), thereby attenuate TLR4 expression and TLR4 mediated NF-\(\kappa\)B and MAPK activation and the release of pro-inflammatory cytokines, suggests that it may be a therapeutic agent against inflammatory diseases.\[4\]

Alpinetin has antioxidant effects, can protect LPS-induced kidney injury through activating Nrf2 and inhibiting TLR4 expression.\[5\]

Alpinetin suppresses T-cell-mediated delayed-type hypersensitivity reaction in mice, could shock the activation of NF-\(\kappa\)B NFAT2 signal transduction pathways, indicates that it has potential effects in downregulating the immune system and might be developed as a useful immunosuppressive agent in treating undesired immune responses.\[6\]

[ Solvent ]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.
[**HPLC Method**][7]

Mobile phase: Methanol-H2O=70:30;
Flow rate: 1.0 ml/min;
Column temperature: 25 ℃;
The wave length of determination: 300 nm.

[**Storage**]

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

[**References**]


[**Contact**]

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