[ Product Information ]

Name: Osthol
Catalog No.: CFN98765
Cas No.: 484-12-8
Purity: > 98%
M.F: C_{15}H_{16}O_{3}
M.W: 244.3

Physical Description: Cryst.

Synonyms: 2H-1-Benzopyran-2-one, 7-methoxy-8-(3-methyl-2-butenyl)-; 7-Methoxy-8-isopentenylcoumarin; 7-Methoxy-8-(3-methylbut-2-enyl)chromen-2-one.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Care and daily chemicals;
7. Intermediates & Fine Chemicals;
8. Ingredient in supplements, beverages;
9. Aromatics;
10. Spice flavor;
11. Others.

[Source]
The fructus of *Cnidium monnieri* (L.) *Cusson*.

[Biological Activity or Inhibitors]
Osthol, one major component of cnidii monnieri fructus, has anti-allergic effect.[1]
Osthol can inhibit P-388 D1 cells in vivo and induce apoptosis in HeLa cells in vitro in a time- and concentration-dependent manner, and that osthol is good lead compound for developing antitumor drugs. [2]
Osthol induces a significant increase in acyl-CoA oxidase mRNA expression associated with an increase in carnitine palmitoyl transferase 1a mRNA expression, which suggests the acceleration of beta-oxidation of hepatic fatty acids, at least in part, for the reduction of hepatic triglyceride content in SHRSP; suggests that osthol could be useful for both prevention of atherosclerosis and suppression of hepatic lipid accumulation.[3]
Osthol can stimulate the osteoblastic differentiation of rat calvarial osteoblast cultures by the BMP-2/p38MAPK/Runx-2/osterix pathway and that osthol may be used as an important compound in the development of new antiosteoporosis drugs.[4]
Osthol inhibits fatty acid synthesis and release via PPARα/γ-mediated pathways in 3T3-L1 adipocytes, regulates hepatic PPARα-mediated lipogenic gene expression in alcoholic fatty liver murine.[5,6]
Osthol and curcumin are inhibitors of human Pgp and multidrug efflux pumps of Staphylococcus aureus, reversing the resistance against frontline antibacterial drugs.[7]

[Solvent]
Chloroform, Dichloromethane, DMSO, Acetone.

[HPLC Method][8]
Mobile phase: Acetonitrile-H2O =60:40;
Flow rate: 1.0 ml/min;
Column temperature: Room Temperature;
The wavelength of determination: 322 nm.

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

[ References ]

[ Contact ]
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