Natural Products

ChemFaces

Oleuropein Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Oleuropein

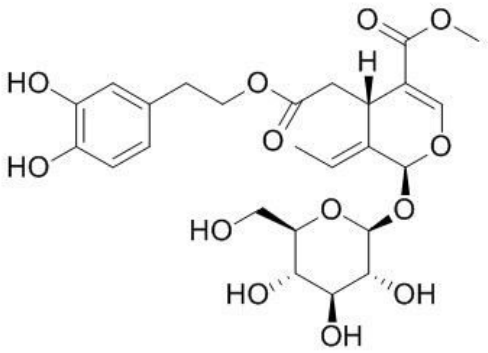
Catalog No.: CFN98416

Cas No.: 32619-42-4

Purity: 98%

M.F: $C_{25}H_{32}O_{13}$

M.W: 540.5



Physical Description: Powder

Synonyms:(2S,3E,4S)-3-Ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-2H-pyran-4-acetic acid 2-(3,4-dihydroxyphenyl)ethyl ester.

[Intended Use]

1. Reference standards;
2. Pharmacological research: Coronary heart disease, Anti-cancer and so on;
3. Health care products;
4. Food and cosmetic research;
5. Functional drinks;
6. Other fields.

[Source]

The herb of *Olea europaea L.*

[Biological Activity or Inhibitors]

Oleuropein, main constituent of olive , exhibits anti-ischemic, antioxidative, and hypolipidemic effects in anesthetized rabbits.[1]

Oleuropein potentiates the macrophage-mediated response during endotoxin challenge, resulting in higher NO production, it is beneficial for cellular and organismal protection.[2]

Oleuropein may be of advantage in inhibiting hyperglycemia and oxidative stress induced by diabetes and suggest that administration of oleuropein may be helpful in the prevention of diabetic complications associated with oxidative stress.[3]

Oleuropein prevents oxidative myocardial injury induced by ischemia and reperfusion, it as possible therapeutic tools for the pharmacological treatment of coronary heart disease as well as in the case of cardiac surgery, including transplantation.[4]

Oleuropein and hydroxytyrosol can have a chemo-preventive role in breast cancer cell proliferation through the inhibition of estrogen-dependent rapid signals involved in uncontrolled tumor cell growth.[5]

Oleuropein (80 mg/kg, intraperitoneally, twice daily) reduces viremia in duck hepatitis B virus (DHBV)-infected ducks, it therefore warrants further investigation as a potential therapeutic agent for HBV infection.[6]

Oleuropein has in vitro antimycoplasmal activity.[7]

[Solvent]

Ethanol, Methanol, Acetone, Pyridine.

[HPLC Method][8]

Mobile phase: Acetonitrile-Phosphate buffer(pH 3.0)= 20:80;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 280 nm.

[Storage]

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

[References]

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[4] Manna C, Migliardi V, Golino P. *J. Nutr. Biochem., 2004, 15(15):461-6.*

[5] Sirianni R, Chimento A, Luca A D, *et al. Mol. Nutr. Food Res., 2010, 54(6):833–40.*

[6] Zhao G, Yin Z, Dong J. *J. Ethnopharmacol., 2009, 125(2):265-8.*

[7] Furneri P M, Marino A, Saija A, *et al. Int. J. Antimicrob. Ag., 2002, 20(4):293-6.*

[8] Al-Rimawi F. *J. Food Drug Anal., 2014, 22(3):285-9.*

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