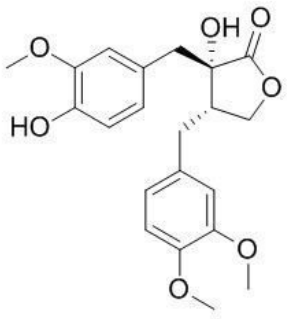
Natural Products

ChemFaces

Trachelogenin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: Trachelogenin

Catalog No.: CFN90598

Cas No.: 34209-69-3

Purity: >=98%

M.F: $C_{21}H_{24}O_7$

M.W: 388.15

Physical Description: Cryst.

Synonyms:(3S,4S)-4-[(3,4-Dimethoxyphenyl)methyl]dihydro-3-hydroxy-3-[(4-hydroxy-3-methoxyphenyl)methyl]-2(3H)-furanone.

[Intended Use]

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

[Source]

The herbs of *Trachelospermum jasminoides (Lindl.) Lem.*

[Biological Activity or Inhibitors]

Trachelogenin(TC) , one major component is isolated from erminated-safflower seed (GSS) extract, shows significant proliferative and differentiative effects on calvarial bone cells at 10(-8) M, and its effects are significantly higher than those of 17 beta-estradiol (E(2)), suggests that TC in GSS may be useful as potential therapeutic agent for the prevention and treatment of bone loss.[1]

Trachelogenin significantly affects the phosphorylation of key proteins such as β-Catenin, c-Myc and GSK3 in the β-Catenin signaling pathway against the SW480 colon adenocarcinoma cell line in a concentration-dependent manner, these changes account for the antiproliferative effects of trachelogenin.[2]

Trachleogenin may help to attenuate food allergy or inflammatory bowel disease through inhibition of allergen permeation or enhancement of the intestinal barrier. [3]

Trachelogenin , as a potent entry inhibitor of hepatitis C virus (HCV) without genotype specificity, and with low cytotoxicity; a crucial function of TC is the inhibition of HCV entry during a post-binding step without affecting viral replication, translation, assembly and release, TC blocks viral infection by interfering with the normal interactions between HCV glycoprotein E2 and the host entry factor CD81, which are key processes for valid viral entry; therefore, TC is a potential candidate for the future cocktail therapies to treat HCV patients.[4]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method][5]

Mobile phase: Methanol -H2O,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 230 nm.

[Storage]

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

[References]

[1] Kim E O, Kim K S, Lee W J, *et al. Food Sci. Biotech., 2009, 18(3):689-93.*

[2] Mervai Z, Sólyomváry A, Tóth G*, et al. Fitoterapia, 2015, 100:19-26.*

[3] Shin H S, Bae M J, Jung S Y, *et al. Biol. Pharm. Bull., 2015, 38(11):1707-13.*

[4] Qian X J, Jin Y S, Chen H S*, et al. J.Gen. Virol., 2016, 97(5):1134-44.*

[5] Liu X T, Wang X G, Yang Y, *et al. Molecules, 2015, 20(5):8107-24.*

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