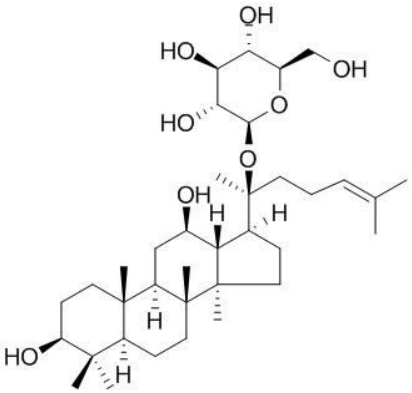
Natural Products

ChemFaces

Ginsenoside Compound K Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: Ginsenoside Compound K

Catalog No.: CFN99756

Cas No.: 39262-14-1

Purity: > 98%

M.F: $C_{36}H_{62}O_8$

M.W: 622.88

Physical Description: White powder

Synonyms: 20(S)-Protopanaxadiol 20-O-D-glucopyranoside.

[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. Others.

[Source]

The roots of *Panax ginseng C.A.Mey.*

[Biological Activity or Inhibitors]

Ginsenoside compound K (C-K) is a metabolite of the protopanaxadiol-type saponins of Panax ginseng C.A. Meyer, has long been used to treat against the development of cancer, inflammation, allergies, and diabetes; C-K acts as a unique HUVEC migration inhibitor by regulating MMP expression, as well as the activity of SPHK1 and its related sphingolipid metabolites.[1]

Ginsenoside compound K, the intestinal metabolite of ginseng saponin, has various chemopreventive and chemotherapeutic activities, including anti-tumor activity; C-K suppresses the activation of the NF-κB pathway, may become a potential cytotoxic drug in the prevention and treatment of hepatocellular carcinoma(HCC).[2]

Ginsenoside compound K shows significant anti-proliferative effects and pro-apoptotic effects in HCT-116 and SW-480 cells at concentrations of 30-50 uM, suggests that C-K could be potentially effective anti-colorectal cancer agent.[3]

Ginsenoside CK has anti-cancer effect on NPC cells, C-K-induced apoptosis of HK-1 cells is mediated by the mitochondrial pathway and can significantly inhibit tumor growth in vivo.[4]

[Solvent]

Pyridine, Methanol, Ethanol, Hot water, etc.

[HPLC Method][5]

Mobile phase: Acetonitrile-H2O=48:52;

Flow rate: 1.0 ml/min;

Column temperature: 35 ℃;

The wave length of determination: 203 nm.

[Storage]

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

[References]

[1] Shin K O, Seo C H, Cho H H, *et al. Arch. Pharm. Res., 2014, 37(9):1183-92.*

[2] Ming Y, Chen Z, Chen L, *et al.Planta Med., 2011, 77(5):428-33.*

[3] Wang C Z, Du G J, Zhang Z, *et al.Int. J.Oncol. , 2012, 40(6):1970-6.*

[4] Law K M, Kwok H H, Poon P Y, *et al. Chinese Medicine, 2014, 9(1):1-9.*

[5] Zhou W, Luo Z S, Zhou P, *et al. Chromatogram, 2005, 23(3):270-2.*

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