Natural Products

ChemFaces

(-)-Catechin gallate(CG) Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: (-)-Catechin gallate(CG)

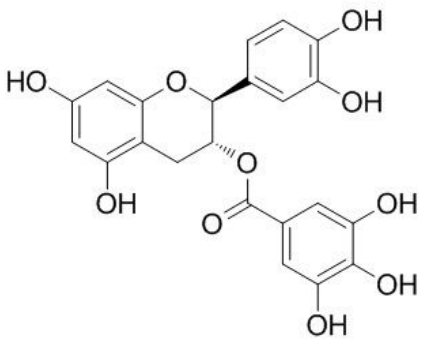
Catalog No.: CFN98504

Cas No.: 130405-40-2

Purity: >=98%

M.F: $C_{22}H_{18}O_{10}$

M.W: 442.37



Physical Description: White powder

Synonyms:(2S,3R)-2-(3,4-Dihydroxyphenyl)-5,7-dihydroxychroman-3-yl-3,4,5-trihydroxy benzoate;[(2S,3R)-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-3,4-dihydro-2H-chromen-3-yl] 3,4,5-trihydroxybenzoate.

[Intended Use]

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

[Source]

The wood of *Acacia catechu (L.F.) Willd.*

[Biological Activity or Inhibitors]

Catechin gallate (CG, IC_{50}=53 microM) shows cytotoxicity against the colorectal adenocarcinoma cell line HCT116.[1]

Catechin 3-gallate (CG) is a good inhibitor of maltase, with IC_{50} values of 62 uM, it inhibits both α-glucosidases and rabbit glycogen phosphorylase (GP) in vitro and in cell culture, would contribute to the protection or improvement of type 2 diabetes.[2]

Catechin gallate exhibits strong anti-proliferative and anti-inflammatory activities on pancreatic ductal adenocarcinoma (PDAC) cells.[3]

[Solvent]

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

[HPLC Method][4]

Mobile phase: (Methanol-0.1% formic acid=10:90)-(Methanol-acetonitrile-0.1% formic acid=50:30:20),gradient elution ;

Flow rate:1.0 ml/min;

Column temperature: 30℃;

The wave length of determination:280 nm.

[Storage]

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

[References]

[1] Hayes C J, Whittaker B P, Watson S A, *et al. J.Org. Chem.,2006 Dec 22;71(26): 9701-12.*

[2] Kamiyama O, Sanae F, Ikeda K, *et al. Food Chem.,2010,122(4):1061-6.*

[3] Kürbitz C, Heise D, Redmer T, *et al. Cancer Science,2011,102(4):728-34.*

[4] Zhao X, Hang T, Wang Y, *et al. Chinese Journal of Pharmaceutical Analysis,2007, 27(3):389-94.*

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