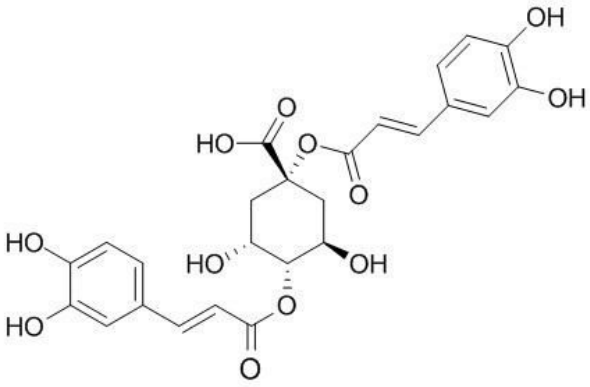
Natural Products

ChemFaces

1,4-Dicaffeoylquinic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: 1,4-Dicaffeoylquinic acid

Catalog No.: CFN99122

Cas No.: 1182-34-9

Purity: > 98%

M.F: $C_{25}H_{24}O_{12}$

M.W: 516.46

Physical Description: Yellow powder

Synonyms:1,4-Bis[[(E)-3-(3,4-dihydroxyphenyl)prop-2-enoyl]oxy]-3,5-dihydroxycyclohexane-1-carboxylic acid.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food and cosmetic research;
4. Synthetic precursor compounds;
5. Intermediates & Fine Chemicals;
6. Ingredient in supplements, beverages;
7. Others.

[Source]

The flowerbud of *Lonicera japonica Thunb.*

[Biological Activity or Inhibitors]

All of the dicaffeoylquinic acids inhibit HIV-1 replication at concentrations ranging from 1 to 6 microM in T cell lines, whereas their toxic concentrations in the same cell lines were > 120 microM, and the compounds inhibit HIV-1 IN in vitro at submicromolar concentrations; indicates that the dicaffeoylquinic acids as a class are potent and selective inhibitors of HIV-1 IN and form important lead compounds for HIV drug discovery.[1]

Dicaffeoylquinic acids have antioxidant activities in the DPPH radical and superoxide anion radical scavenging systems. [2]

Dicaffeoylquinic acid derivatives show inhibitory activity on recombinant human AKR1B10 (rh AKR1B10) in the range of IC 50 1.24-2.29 uM.[3]

[Solvent]

Pyridine, DMSO, Ethanol, Methanol.

[HPLC Method][4]

Mobile phase: Acetonitrile: 0.05% Formic acid H2O, gradient eiution;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 328 nm.

[Storage]

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

[References]

[1] Jr R W, Cordeiro M, Abdelmalek S, *et al. Mol. Pharmacol., 1996, 50(4):846-55.*

[2] Kim H J, Lee Y S. *Planta Med., 2005, 71(9):871-6.*

[3] Lee H J, Lee J Y, Sang M K, *et al. J. Korean Soc. App. Bi., 2010, 53(6):826-30.*

[4] Wang Y F, Xie L L, Liu S L, *et al. Chinese Journal of Pharmaceutical Analysis, 2009(3):430-2.*

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