

1,5-Dicaffeoylquinic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: 1,5-Dicaffeoylquinic acid

Catalog No.: CFN99123

Cas No.: 30964-13-7

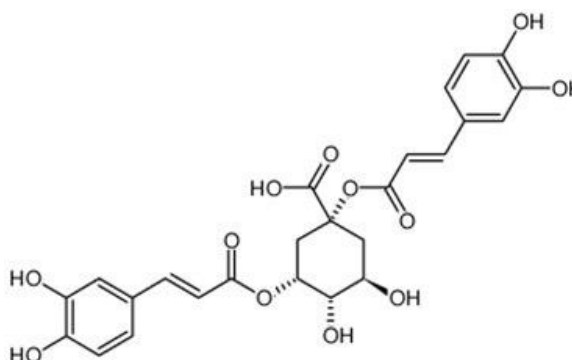
Purity: > 98%

M.F: C₂₅H₂₄O₁₂

M.W: 516.45

Physical Description: White powder

Synonyms: (1R,3R,4S,5R)-1,3-bis[(E)-3-(3,4-dihydroxyphenyl)-1-oxoprop-2-enoyl]-4,5-dihydroxy-1-cyclohexanecarboxylic acid.



[Intended Use]

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

[Source]

The herb of *Lonicera japonica* Thunb.

[Biological Activity or Inhibitors]

1,5-Dicaffeoylquinic acid (1,5-DQA), a caffeoylquinic acid derivative isolated from *Aster scaber*, has neuroprotective effects, can prevent A β (42)-induced neurotoxicity through the activation of PI3K/Akt followed by the stimulation of Trk A, then the inhibition of GSK3 β as well as the modulation of Bcl-2/Bax.^[1]

1,5-Dicaffeoylquinic acid has antioxidant activity, and is stronger than that of ascorbic acid.^[2]

1,5-Dicaffeoylquinic Acid has protective effects against MPP⁺ induces neurotoxicity of PC12 Cells, it (50 μ mol/L) pretreatment can inhibit the MPP⁺-induced up-regulation of the expression of α -synuclein mRNA and protein.^[3]

1, 5-Dicaffeoylquinic acid can mediate glutathione synthesis through activation of Nrf2 protects against OGD/reperfusion-induced oxidative stress in astrocytes.^[4]

[Solvent]

Pyridine, DMSO, Methanol, Ethanol, Hot water, etc.

[HPLC Method]^[5]

Mobile phase: Acetonitrile-Methanol-0.5% Formic acid solution, gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: 30 $^{\circ}$ C;

The wave length of determination: 325 nm.

[Storage]

2-8 $^{\circ}$ C, Protected from air and light, refrigerate or freeze.

[References]

[1] Xiao H B, Cao X, Wang L, *et al. Chinese Med. J.*, 2011, 124(17):2628-35.

[2] Slanina J, Paulová H, Humpa O, *et al. Organic. Chem.*, 1999, 72.

[3] Cao X, Xiao H, Li H. *Acta Med. Universit. Sci. Et. Technol. Huazhong*, 2010, 39(4): 435-38.

[4] Xu C, Xiao H, Zhang Y, *et al. Brain Res.*, 2010, 1347(1):142-8.

[5] Dong Y, Zhang Y, Liu Y, *et al. Chinese J. Pharm.*, 2010, 41(6):447-9.

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