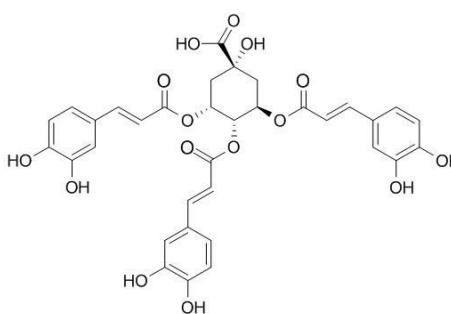


3,4,5-Tricaffeoylquinic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: 3,4,5-Tricaffeoylquinic acid**Catalog No.:** CFN90238**Cas No.:** 86632-03-3**Purity:** >=98%**M.F:** C₃₄H₃₀O₁₅**M.W:** 678.59**Physical Description:** Powder**Synonyms:** (1 α ,3R,4 α ,5R)-3,4,5-Tris[[(2E)-3-(3,4-dihydroxyphenyl)-1-oxo-2-propen-1-yl]oxy]-1-hydroxycyclohexanecarboxylic acid; 3,4,5-Tri-O-caffeoylquinic acid.

[Intended Use]

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

[Source]

The herbs of *Xanthium sibiricum* Patrín.

[Biological Activity or Inhibitors]

3,4,5-Tricaffeoylquinic acid (TCQA) has inhibitory effect on human immunodeficiency virus (HIV) Type 1 integrase.^[1]

3,4,5-Tricaffeoylquinic acid seems to attenuate the TNF- α -stimulated inflammatory mediator production in keratinocytes by suppressing the activation of Akt and NF- κ B pathways which may be mediated by reactive oxygen species, suggests that 3,4,5-tricaffeoylquinic acid may exert an inhibitory effect against the pro-inflammatory mediator-induced skin disease.^[2]

3,4,5-Tri-caffeoylquinic acid shows a neuroprotective effect against A β -induced cell death through the upregulation of glycolytic enzyme mRNA as well as ATP production activation. ^[3]

3,4,5-Tri-caffeoylquinic acid is a prominent candidate that exerts the effect and shows a strong maltase-specific inhibition with an IC(50) value of 24 microM.^[4]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[5]

Mobile phase: Methanol- 0.2% Formic acid in water, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 40 °C;

The wave length of determination: 340 nm.

[Storage]

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

[References]

[1] Tamura H, Akioka T, Ueno K, *et al. Mol. Nutr. Food Res.*, 2006, 50(4-5):396-400.

[2] Lee C S, Lee S A, Yun J K, *et al. Int. Immunopharmacol.*, 2011, 11(11):1715-23.

[3] Yusaku Miyamae, Junkyu Han, Kazunori Sasaki, *et al. Cytotechnology*, 2011, 63(2):191-200.

[4] Matsui T, Ebuchi S, Fujise T, *et al. Biol. Pharmaceut. Bull.*, 2004, 27(11):1797-803.

[5] Kurata R, Yahara S, Yamakawa O, *et al. Food Sci. Technol. Res.*, 2011, 17((2)):87-92.

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