Natural Products

ChemFaces

3-O-trans-p-Coumaroyltormentic acid Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: 3-O-trans-p-Coumaroyltormentic acid

Catalog No.: CFN97843

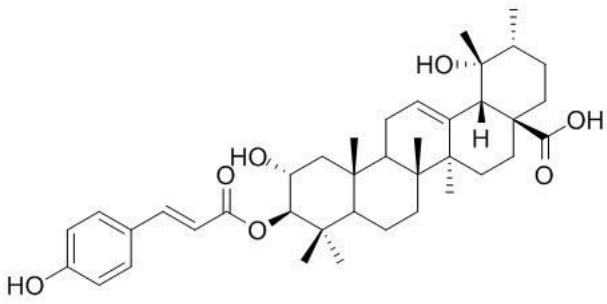
Cas No.: 121064-78-6

Purity: > 95%

M.F: $C_{39}H_{54}O_7$

M.W: 634.86

Physical Description: Powder



Synonyms:3-O-p-Coumaroyltormentic acid;3-O-(E)-p-Coumaroyl tormentic acid.

[Intended Use]

1. Reference standards;

2. Pharmacological research;

3. Synthetic precursor compounds;

4. Intermediates & Fine Chemicals;

5. Others.

[Source]

The leaves of *Eriobotrya japonica calli.*

[Biological Activity or Inhibitors]

3-O-(E)-p-coumaroyl tormentic acid induces apoptotic cell death in human leukemia

(HL60) via mainly mitochondrial pathway by, at least in part, Topo I inhibition, it may be promising lead compound for developing an effective drug for treatment of leukemia.[1]

3-O-trans-p-coumaroyltormentic acid shows cytotoxicity against four human tumor cell lines (A549, SK-OV-3, SK-MEL-2, and HCT-15) in vitro, the IC_{50} values of 13.72, 14.29,14.61, 14.04 uM, respectively.[2]

3beta-O-cis-p-Coumaroyltormentic acid, and 3beta-O-trans-p-coumaroyltormentic acid are weakly selective for vancomycin-resistant Enterococcus (VRE) compared with eukaryotic cells, with an MIC of 59.4microg/mL and a 50% inhibitory concentration (IC_{50}) of 72.0microg/mL for monkey kidney epithelial (MA104) cells.[3]

A mixture of 3-O-cis-p-coumaroyltormentic acid and 3-O-trans-p-coumaroyltormentic acid shows an inhibitory effect comparable to (-)-epigallocatechin gallate (EGCG) of green tea on the activation of Epstein-Barr virus early antigen (EBV-EA) induced by 12-O-tetradeca--noylphorbol-13-acetate (TPA).[4]

[Solvent]

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

[HPLC Method][5]

Mobile phase: Methanol -H2O=88:12;

Flow rate:1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination:209 nm.

[Storage]

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

[References]

[1] Kikuchi T, Akazawa H, Tabata K, *et al. Chem. Pharm. Bull. (Tokyo),2011;59(3):378-81.*

[2] Woo K W, Han J Y, Choi S U, *et al. Nat. Prod. Sci.,2014, 20(2):71-5.*

[3] Mcrae J M, Yang Q, Crawford R J, *et al. J. Ethnopharmacol.,2008 Mar 28;116(3):554-60.*

[4] Taniguchi S, Imayoshi Y, Kobayashi E, *et al. Phytochemistry,2002 Feb;59(3):315-23.*

[5] Zhang D X, Chen Z, Li X R, *et al. Guide of China Medicine, 2011, 09(11):45-6.*

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