Natural Products

ChemFaces

Mulberroside A Datasheet

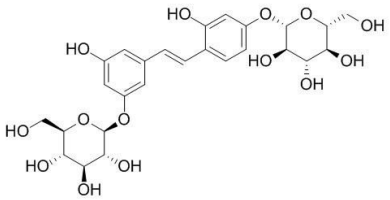
4th Edition (Revised in July, 2016)

[Product Information]

Name: Mulberroside A

Catalog No.: CFN99586

Cas No.: 102841-42-9



Purity: >=98%

M.F: $C_{26}H_{32}O_{14}$

M.W: 568.52

Physical Description: White powder

Synonyms:3-{(E)-2-[4-(beta-D-glucopyranosyloxy)-2-hydroxyphenyl]ethenyl}-5-hydroxyphenyl beta-D-glucopyranoside.

[Intended Use]

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

[Source]

The root bark of *Morus alba L.*

[Biological Activity or Inhibitors]

Mulberroside A is a major stilbene glycoside of *Morus alba L. (Moraceae)*, which is effectively used for the treatment of hyperuricemia and gout in traditional Chinese medicine, it exhibits uricosuric and nephroprotective effects mediated in part by cooperative attenuation of the expression alterations of renal organic ion transporters in hyperuricemic mice, suggests that mulberroside A may be a new drug candidate for the treatment of hyperuricemia with renal dysfunction.[1]

cis-Mulberroside A shows high analgesic and anti-inflammatory activities.[2]

cis-Mulberroside A can protect mice against ethanol-induced hepatic damage. [3]

Mulberroside A, oxyresveratrol, and oxyresveratrol-3-O-glucoside can reduce the pigmentation in guinea pig skin, they suppress the expression of melanogenic enzymes tyrosinase, tyrosinase-related protein-1, and microphthalmia transcription factor, they have anti-melanogenesis effects, thus, they effectively reduce pigmentation and may be suitable cosmetic agents for skin whitening.[4]

Mulberroside A has nephroprotective, hypoglycemic, and antidiabetic effects; it elicits neuroprotective effects comparable to nimodipine, it decreases the expressions of tumor necrosis factor-α (TNF-α), interleukin (IL)−1β, and IL-6 and inhibits the activation of NALP3, caspase-1, and nuclear factor-κB and the phosphorylation of extracellular signal-regulated protein kinases, the c-Jun N-terminal kinase, and p38, exhibits anti-inflammatory and antiapoptotic effects, suggests that mulberroside A is a candidate for the treatment of ischemic stroke, which would act as a multifactorial neuroprotectant.[5]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method][6]

Mobile phase: Methanol-H2O=15:85 ;

Flow rate: 1.0 ml/min;

Column temperature: 30℃;

The wave length of determination: 324 nm.

[Storage]

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

[References]

[1] Wang C P, Wang Y, Wang X, *et al. Planta Med., 2011, 77(8):786-94.*

[2] Zhang Z, Shi L. *Fitoterapia, 2010, 81(3):214-8.*

[3] Zhang Z, Jie J, Shi L. *Environ. Toxicol. Phar., 2008, 26(3):325-30.*

[4] Park K T, Kim J K, Hwang D, *et al. Food Chem. Toxicol. 2011, 49(12):3038-45.*

[5] Wang C P, Zhang L Z, Li G C, *et al. J. Neurosci. Res., 2014, 92(7):944–54.*

[6] Fang J, Gao F, Wu H W, *et al. Chinese Journal of Experimental Traditional Medical Formulae, 2013, 19(5):80-2.*

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