

Asiaticoside Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Asiaticoside

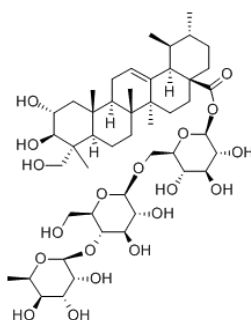
Catalog No.: CFN99912

Cas No.: 16830-15-2

Purity: >=98%

M.F: C₄₈H₇₈O₁₉

M.W: 959.12



Physical Description: White powder

Synonyms: [6-[[[3,4-Dihydroxy-6-(hydroxymethyl)-5-(3,4,5-trihydroxy-6-methyl-oxan-2-yl)oxy-oxan-2-yl]oxymethyl]-3,4,5-trihydroxy-oxan-2-yl](1S,2R,4aS,6aS,6bR,9S,10R,11R,12aS,14bR)-10,11-dihydroxy-9-(hydroxymeth.

[Intended Use]

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

[Source]

The herbs of *Centella asiatica* (L.) Urban.

[Biological Activity or Inhibitors]

Asiaticoside, isolated from *Centella asiatica*, exhibits significant wound healing activity in normal as well as delayed healing models and is the main active constituent of *Centella asiatica*.^[1]

Centella asiatica and its active ingredient asiaticoside have potential use as anti-gastric ulcers drugs.^[2]

Asiaticoside suppresses collagen expression and TGF- β /Smad signaling through inducing Smad7 and inhibiting TGF- β RI and TGF- β RII in keloid fibroblasts. ^[3]

Asiaticoside derivatives have potential protective effects against Abeta-induced cell death, they can be regarded as reasonable candidates for a therapeutic Alzheimer's disease drug that protects neurons from Abeta toxicity.^[4]

Asiaticoside exhibits an anxiolytic-like and antidepressant-like effects.^[5,6]

Asiaticoside has remarkable hepatoprotective effects on lipopolysaccharide/D-galactosamine-induced liver injury and the possible mechanism is related to inhibition of TNF- α and MAPKs.^[7]

Asiaticoside has antipyretic and anti-inflammatory effects in lipopolysaccharide-treated rat through up-regulation of heme oxygenase-1.^[8]

Asiaticoside, as a biochemical modulator, may induce apoptosis, and enhance anti tumor activity of vincristine in cancer cells, may be useful in cancer chemotherapy.^[9]

Asiaticoside exhibits antioxidant and anti-inflammatory activities, it can effectively protect from septic lung injury induced by CLP and the underlying mechanisms might be related to up-regulation of PPAR- γ expression to some extent, which inhibits MAPKs and NF- κ B pathway.^[10]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[11]

Mobile phase: Acetonitrile- 0.3%Orthophosphoric acid buffer, gradient elution;

Flow rate: 1.8 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 210 nm.

[Storage]

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

[References]

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- [7] Zhang L, Li H Z, Gong X, *et al. Phytomed. Int. J. Phytother. Phytopharmacol.*, 2010, 17 (10):811-9.
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- [11] Tiwari R K, Chanda S, Deepak M, *et al. J.Chem. Pharmaceut. Res.*, 2010(3):223-9.

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