

Chebolic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Chebolic acid

Catalog No.: CFN92293

Cas No.: 23725-05-5

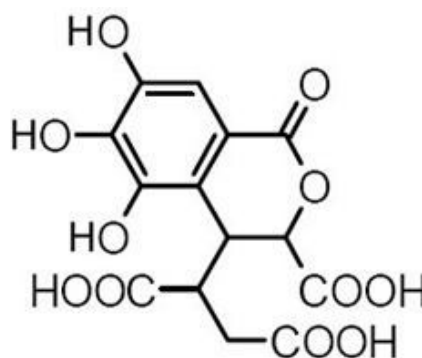
Purity: > 98%

M.F: C₁₄H₁₂O₁₁

M.W: 356.2

Physical Description: Powder

Synonyms: 3-Carboxy-3,4-dihydro-5,6,7-trihydroxy-1-oxo-1H-2-benzopyran-4-yl-butanedioic acid; (2S)-[(3S,4S)-3-Carboxy-3,4-dihydro-5,6,7-trihydroxy-1-oxo-1H-2-benzopyran-4-yl]butanedioic acid; Split acid.



[Intended Use]

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

[Source]

The fruits of *Terminalia chebula*.

[Biological Activity or Inhibitors]

Chebolic acid was selected, as tannins from *Terminalia chebula* are used as antidiabetic, renoprotective, antioxidant, hypotensive and an α -glucosidase inhibitor; chebolic acid at both doses (25 and 50mg/kg) improves biochemical alterations caused by renal ischemia in diabetic rats.^[1]

Chebolic acid has preventive effects on advanced glycation endproduct-induced endothelial cell dysfunction, suggests that it may constitute a promising intervention agent against diabetic vascular complications.^[2]

Chebolic acid exhibits in vitro a free radical-scavenging activity and ferric-reducing antioxidant activity, significantly reduces the tert-butyl hydroperoxide (t-BHP)-induced cell cytotoxicity, intracellular reactive oxygen species level, and the ratio of GSSH.^[3]

Chebolic acid prevents the glycer-AGEs-induced ROS formation of LX-2 cells and collagen accumulation by ERK-phosphorylation-mediated Nrf2 nuclear translocation, which causes upregulation of antioxidant protein production.^[4]

[Solvent]

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

[HPLC Method]^[5]

Mobile phase: Acetonitrile-0.1% Aqueous phosphoric acid H₂O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 216 nm.

[Storage]

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

[References]

- [1] Gupta V B. *Pharm. Biol.*, 2012, 51(1):23-9.
- [2] Lee H S, Koo Y C, Suh H J, *et al. J. Ethnopharmacol.*, 2010, 131(3):567-74.
- [3] Lee H S, Jung S H, Yun B S, *et al. Archive Für Toxikologie*, 2007, 81(3):211-8.
- [4] Koo Y C, Min C P, Nam M H, *et al. Toxicol. Vitro*, 2016, 34:8-15.
- [5] Han Q, Song J, Qiao C, *et al. J. Sep. Sci.*, 2006, 29(11):1653-7.

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