

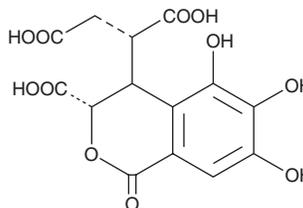
PRODUCT INFORMATION



Chebolic Acid

Item No. 11829

CAS Registry No.: 23725-05-5
Formal Name: (2S)-[(3S,4S)-3-carboxy-3,4-dihydro-5,6,7-trihydroxy-1-oxo-1H-2-benzopyran-4-yl]-butanedioic acid
Synonym: (-)-Chebolic Acid
MF: C₁₄H₁₂O₁₁
FW: 356.2
Purity: ≥95%
UV/Vis.: λ_{max}: 225, 287 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Chebulae Fructus*



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Chebolic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the chebolic acid in the solvent of choice, which should be purged with an inert gas. Chebolic acid is soluble in the organic solvent methanol.

Description

Chebolic acid is a phenol that has been found in *T. chebular* and has diverse biological activities.¹⁻³ It reduces production of reactive oxygen species (ROS) in human umbilical vein endothelial cells (HUVECs) induced by glyceraldehyde-related advanced glycation end products (glycer-AGEs) when used at a concentration of 100 µg/ml.¹ Chebolic acid reduces glycer-AGE-induced adhesion of HUVECs to THP-1 monocytes. It induces Nrf2 nuclear translocation and glutathione (GSH) synthesis and inhibits glycer-AGE-induced collagen accumulation, a marker of fibrosis, in LX-2 hepatic stellate cells.² *In vivo*, chebolic acid (25 and 50 mg/kg) increases serum insulin levels and reduces blood urea nitrogen levels, proteinuria, albuminuria, and serum glucose levels in a diabetic rat model of ischemia-reperfusion-induced nephropathy.³

References

1. Lee, H.-S., Koo, Y.-C., Suh, H.J., *et al.* Preventive effects of chebolic acid isolated from *Terminalia chebula* on advanced glycation endproduct-induced endothelial cell dysfunction. *J. Ethnopharmacol.* **131(3)**, 567-574 (2010).
2. Koo, Y.-C., Pyo, M.C., Nam, M.-H., *et al.* Chebolic acid prevents hepatic fibrosis induced by advanced glycation end-products in LX-2 cell by modulating Nrf2 translocation via ERK pathway. *Toxicol. In Vitro* **34**, 8-15 (2016).
3. Silawat, N. and Gupta, V.B. Chebolic acid attenuates ischemia reperfusion induced biochemical alteration in diabetic rats. *Pharm. Biol.* **51(1)**, 23-29 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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