

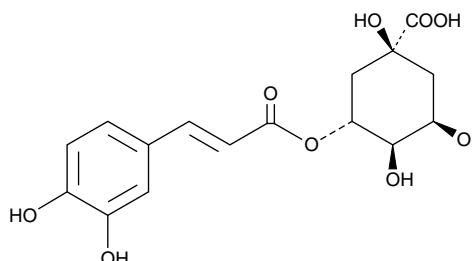
Product Information



Chlorogenic Acid

Item No. 70930

CAS Registry No.: 327-97-9
Formal Name: 3R-[[3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]-1S,4R,5R-trihydroxycyclohexanecarboxylic acid
Synonyms: 3-O-Caffeoylquinic acid; Heriguard; NSC 407296
MF: C₁₆H₁₈O₉
FW: 354.3
Purity: ≥95%
Stability: ≥2 years at 4°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 219, 246, 331 nm



Laboratory Procedures

For long term storage, we suggest that chlorogenic acid be stored as supplied at 4°C. It should be stable for at least two years.

Chlorogenic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the chlorogenic acid in an organic solvent purged with an inert gas. Chlorogenic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of chlorogenic acid in these solvents is approximately 25 mg/ml.

Organic solvent-free aqueous solutions of chlorogenic acid can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of chlorogenic acid in PBS (pH 7.2) is approximately 25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Chlorogenic acid is a phenolic natural product isolated from the leaves and fruits of dicotyledonous plants, including the coffee bean. Structurally, chlorogenic acid is the ester of caffeic acid with the 3-hydroxyl group of quinic acid. Chlorogenic acid is an important factor in plant metabolism. It is also an antioxidant and an inhibitor of the tumor promoting activity of phorbol esters.^{1,2} Chlorogenic acid, at concentrations as high as 100 μM, did not inhibit the 5-lipoxygenase activity of ionophore-stimulated human PMNLs.³

References

- Huang, M.T., Smart, R.C., Wong, C., *et al.* Inhibitory effect of curcumin, chlorogenic acid, caffeic acid, and ferulic acid on tumor promotion in mouse skin by 12-O-tetradecanoylphorbol-13-acetate. *Cancer Res.* **48**, 5941-5946 (1988).
- Conney, A.H., Lysz, T., Ferraro, T., *et al.* Inhibitory effect of curcumin and some related dietary compounds on tumor promotion and arachidonic acid metabolism in mouse skin. *Adv. Enzyme Regul.* **31**, 385-396 (1991).
- Kimura, Y., Okuda, H., Okuda, T., *et al.* Studies on the activities of tannins and related compounds, X. Effects of caffeetannins and related compounds on arachidonate metabolism in human polymorphonuclear leukocytes. *J. Nat. Prod.* **50**, 392-399 (1987).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/70930

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery.**

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Copyright Cayman Chemical Company, 06/19/2012

Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com