

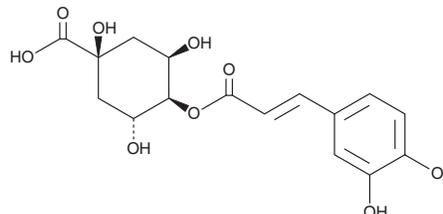
PRODUCT INFORMATION



Cryptochlorogenic Acid

Item No. 25098

CAS Registry No.: 905-99-7
Formal Name: (1 α ,3R,4 α ,5R)-4-[[3-(3,4-dihydroxyphenyl)-1-oxo-2-propen-1-yl]oxy]-1,3,5-trihydroxycyclohexanecarboxylic acid
Synonym: 4-O-Caffeoylquinic Acid
MF: C₁₆H₁₈O₉
FW: 354.3
Purity: \geq 98%
UV/Vis.: λ_{max} : 219, 245, 330 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

Cryptochlorogenic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the cryptochlorogenic acid in the solvent of choice, which should be purged with an inert gas. Cryptochlorogenic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of cryptochlorogenic acid in these solvents is approximately 25, 50, and 71 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of cryptochlorogenic acid can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of cryptochlorogenic acid in PBS (pH 7.2) is approximately 25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Cryptochlorogenic acid is a phenolic acid that has been found in various plant species, including *Artemisia*, honeysuckle, and *H. sabdariffa*, and has diverse biological activities.¹⁻⁴ It inhibits rat lens aldose reductase (RLAR) *in vitro* (IC₅₀ = 11.13 μ M).¹ Cryptochlorogenic acid inhibits the growth of *S. aureus* (MIC = 0.5 mg/ml).² It scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) free radicals in a cell-free assay (IC₅₀ = 5.26 μ g/ml).³ Cryptochlorogenic acid is allergenic, inducing degranulation of RBL-2H3 mast cells *in vitro* and increasing plasma serotonin and β -hexosaminidase levels in guinea pigs *in vivo*.⁴

References

1. Jung, H.A., Islam, N., Kwon, Y.S., *et al.* Extraction and identification of three major aldose reductase inhibitors from *Artemisia montana*. *Food Chem. Toxicol.* **49**(2), 376-384 (2011).
2. Liang, L., Zhou, Q., Hao, Z., *et al.* The discovery of antibacterial natural compound based on peptide deformylase. *Comb. Chem. High Throughput Screen.* **21**(4), 292-297 (2018).
3. Wang, J., Cao, X., Jiang, H., *et al.* Antioxidant activity of leaf extracts from different *Hibiscus sabdariffa* accessions and simultaneous determination five major antioxidant compounds by LC-Q-TOF-MS. *Molecules* **19**(12), 21226-21238 (2014).
4. Wang, F., Li, C., Li, Y., *et al.* Study on the anaphylactoid of three phenolic acids in honeysuckle. *J. Ethnopharmacol.* **170**, 1-7 (2015).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/03/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM