Caffeic acid Datasheet

[ Product Information ]

Name: Caffeic acid
Catalog No.: CFN99190
Cas No.: 331-39-5
Purity: > 98%
M.F: C9H8O4
M.W: 180.15

Physical Description: Yellow cryst.

Synonyms: 3,4-Dihydroxybenzeneacrylic acid; 3-(3,4-Dihydroxyphenyl)-2-propenoic acid; 4-(2-Carboxyethenyl)-1,2-dihydroxybenzene.

[ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Food and cosmetic research;
4. Synthetic precursor compounds;
5. Intermediates & Fine Chemicals;
6. Ingredient in supplements, beverages;
7. Aromatics;
8. Others.

[ Source ]
The herb of *Boehmeria siamensis* Craib.

**[ Biological Activity or Inhibitors]**

Caffeic acid is a well-known phenolic phytochemical present in many foods, including coffee, has anticarcinogenic effects, it can suppress ultraviolet B(UVB)-induced COX-2 expression by blocking Fyn kinase activity, suggests that this compound could act as a potent chemopreventive agent against skin cancer.[1]

Caffeic acid has antioxidant activity, is an effective 2-azino-bis(3-ethylbenzthiazoline-6-sulfonic acid) (ABTS) radical scavenging, 1,1-diphenyl-2-picryl-hydrazyl free radical (DPPH) scavenging, superoxide anion radical scavenging, total reducing power and metal chelating on ferrous ions activities.[2]

Caffeic acid has a stronger antioxidant activity than that of chlorogenic acid and chlorogenic acid is hydrolyzed into caffeic acid in the intestine, it is possible that caffeic acid plays a major role in the protective effect of chlorogenic acid against ischemia–reperfusion injury.[3]

Caffeic acid inhibits HBV-DNA replication as well as HBsAg production, also reduces serum DHBV level in DHBV-infected duckling model, suggests it has anti-HBV activity.[4]

Caffeic acid and some of its derivatives such as caffeic acid phenetyl ester (CAPE) and octyl caffeate are potent antioxidants which present important anti-inflammatory actions, being their actions mediated, at least in part by the scavenging of NO and their ability to modulate iNOS expression and probably that of other inflammatory mediators.[5]

Caffeic acid exhibits a significant potential as an antidiabetic agent by suppressing a progression of type 2 diabetic states that is suggested by an attenuation of hepatic glucose output and enhancement of adipocyte glucose uptake, insulin secretion, and antioxidant capacity.[6]

**[ Solvent ]**

Chloroform, Dichloromethane, Pyridine, DMSO, Methanol.
[ HPLC Method ][7]

Mobile phase: Acetonitrile : 0.4% Phosphoric acid H2O=12:88;
Flow rate: 1.0 ml/min;
Column temperature: 35 °C;
The wave length of determination: 328 nm.

[ Storage ]

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

[ References ]


[ Contact ]

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