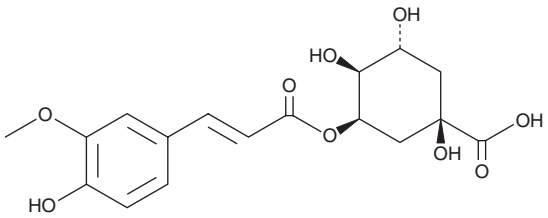
PRODUCT INFORMATION

5-Feruloylquinic Acid

Item No. 34349

CAS Registry No.:	40242-06-6
Formal Name:	1R,3R,4S-trihydroxy-5R-[[3-(4-hydroxy-3-methoxyphenyl)-1-oxo-2-propen-1-yl]oxy]-cyclohexanecarboxylic acid
Synonym:	5-FQA
MF:	$C_{17}H_{20}O_9$
FW:	368.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 219, 236, 326 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Coffea canephora*



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

Laboratory Procedures

5-Feruloylquinic acid is supplied as a solid. A stock solution may be made by dissolving the 5-feruloylquinic acid in the solvent of choice, which should be purged with an inert gas. 5-Feruloylquinic acid is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 5-feruloylquinic acid in these solvents is approximately 30 mg/ml.

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 5-feruloylquinic acid can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 5-feruloylquinic acid in PBS (pH 7.2) is approximately 20 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

5-Feruloylquinic acid is a chlorogenic acid that has been found in green coffee beans and has antioxidant activity.[1] It scavenges DPPH (Item No. 14805) and superoxide anion radicals in cell-free assays (IC_{50}s = ~9 and ~36 µM, respectively).

Reference

1. Iwai, K., Kishimoto, N., Kakino, Y., *et al.* In vitro antioxidative effects and tyrosinase inhibitory activities of seven hydroxycinnamoyl derivatives in green coffee beans. *J. Agric. Food Chem.* **52(15)**, 4893-4898 (2004).

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