

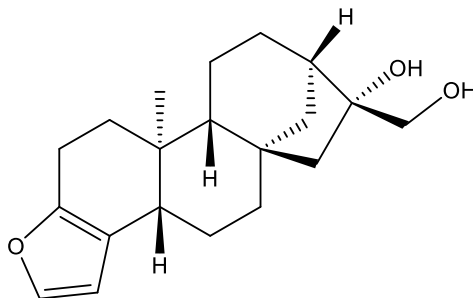
Catalog # 10-2251

Cafestol

CAS# 469-83-0

(1S,4S,12S,13R,16R,17R)-17-(Hydroxymethyl)-12-methyl-8-oxapentacyclo[14.2.1.01,12.05,9]nonadeca-5(9),6-dien-17-ol

Lot # E104923



Cafestol is a bioactive diterpene found in coffee.¹ It displays a number of interesting protective effects including stimulation of glutathione S-transferase activity¹, and protection against aflatoxin-induced genotoxicity². It produces neuroprotective effects in *Drosophila* models of Parkinson's disease³ and in other models⁴. In humans cafestol raises serum cholesterol and acts as an agonist at farnesoid and pregnane X receptors.⁵

- 1) Lam *et al.* (1982), *Isolation and identification of kahweol palmitate and cafestol palmitate as active constituents of green coffee beans that enhance glutathione S-transferase activity in the mouse*; *Cancer Res.* **42** 1193
- 2) Cavin *et al.* (1998), *The coffee-specific diterpenes cafestol and kahweol protect against aflatoxin B1-induced genotoxicity through a dual mechanism*; *Carcinogenesis* **19** 1369
- 3) Trinh *et al.* (2010), *Decaffeinated coffee and nicotine-free tobacco provide neuroprotection in Drosophila models of Parkinson's disease through an NRF2-dependent mechanism*; *J. Neurosci.* **30** 5525
- 4) Socala *et al.* (2020), *Neuroprotective Effects of Coffee Bioactive Compounds: A Review*; *Int. J. Mol. Sci.* **22** 107
- 5) Ricketts *et al.* (2007), *The cholesterol-raising factor from coffee beans, cafestol, as an agonist ligand for the farnesoid and pregnane X receptors*; *Mol. Endocrinol.* **21** 1603

PHYSICAL DATA

Molecular Weight:	316.44
Molecular Formula:	C ₂₀ H ₂₈ O ₃
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (50 mg/ml); Ethanol (5 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20C for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

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