



## Product Information

**Product ID** P2400

**CAS No.** 104594-70-9

**Chemical Name** 3-(3,4-Dihydroxyphenyl)-2-propenoic acid phenylethyl ester

**Synonym** 3,4-Dihydroxycinnamic acid phenethyl ester, caffeic acid phenethyl ester, CAPE

**Formula** C<sub>17</sub>H<sub>16</sub>O<sub>4</sub>

**Formula Wt.** 284.31

**Melting Point**

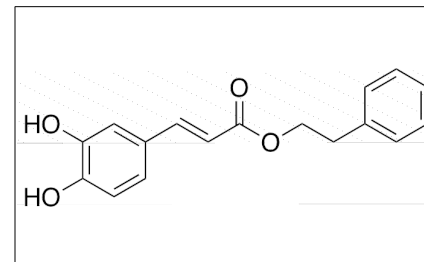
**Purity** ≥98%

**Solubility** Insoluble in water. Soluble  
in DMSO, or ethanol.

**Store Temp** -20° C

**Ship Temp** Ambient

**Description** Phenethyl caffeate is a compound found in propolis, a mixture produced by bees. Phenethyl caffeate exhibits anti-inflammatory, anti-atherosclerotic, antioxidative, cardioprotective, anti-obesity, and anticancer chemotherapeutic activities. In vitro, phenethyl caffeate inhibits IL-1β-induced expression of IL-6, MCP-1, and ICAM-1, and suppresses phosphorylation of Akt and NF-κB. In vivo, phenethyl caffeate decreases levels of AST and lactate dehydrogenase and suppresses lipid peroxidation. Phenethyl caffeate also decreases body weight gain and fat mass in animal models fed a high fat diet, potentially by inhibiting adipogenesis. In other animal models, this compound inhibits 5-lipoxygenase and decreases blood pressure, collagen deposition, and other atherosclerotic biomarkers. In animal and cellular models of colorectal cancer, phenethyl caffeate induces apoptosis and inhibits cellular and tumor growth.



**Bulk quantities available upon request**

Product ID	Size
P2400	50 mg
P2400	100 mg
P2400	500 mg

**References** Yang JW, Jung WK, Lee CM, et al. Caffeic acid phenethyl ester inhibits the inflammatory effects of interleukin-1β in human corneal fibroblasts. *Immunopharmacol Immunotoxicol.* 2014 Oct;36(5):371-7. PMID: 25151996.

Ilhan S, Yılmaz N, Nacar E, et al. The effect of caffeic acid phenethyl ester on isoproterenol-induced myocardial injury in hypertensive rats. *Anadolu Kardiyol Derg.* 2014 Jun 3. [Epub ahead of print]. PMID: 25036319.

Chiang EP, Tsai SY, Kuo YH, et al. Caffeic acid derivatives inhibit the growth of colon cancer: involvement of the PI3-K/Akt and AMPK signaling pathways. *PLoS One.* 2014 Jun 24;9(6):e99631. PMID: 24960186.

Shin SH, Seo SG, Min S, et al. Caffeic acid phenethyl ester, a major component of propolis, suppresses high fat diet-induced obesity through inhibiting adipogenesis at the mitotic clonal expansion stage. *J Agric Food Chem.* 2014 May 14;62(19):4306-12. PMID: 24611533.

Hassan NA, El-Bassossy HM, Mahmoud MF, et al. Caffeic acid phenethyl ester, a 5-lipoxygenase enzyme inhibitor, alleviates diabetic atherosclerotic manifestations: effect on vascular reactivity and stiffness. *Chem Biol Interact.* 2014 Apr 25;213:28-36. PMID: 24508943.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.