

## Certificate of Analysis

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**Product Name:** Caffeic acid phenethyl ester

**Catalog No.:** 2743

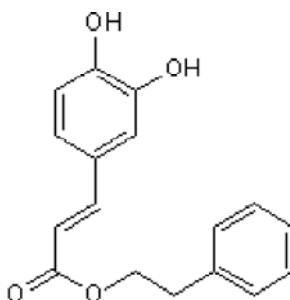
**Batch No.:** 3

CAS Number: 104594-70-9

IUPAC Name: 3-(3,4-Dihydroxyphenyl)-2-propenoic acid 2-phenylethyl ester

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>17</sub>H<sub>16</sub>O<sub>4</sub>  
**Batch Molecular Weight:** 284.31  
**Physical Appearance:** Pale yellow solid  
**Solubility:** DMSO to 100 mM  
ethanol to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	71.82	5.67	0
Found	71.12	5.66	0.1

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**3**

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IUPAC Name: 3-(3,4-Dihydroxyphenyl)-2-propenoic acid 2-phenylethyl ester

**Description:**

Caffeic acid phenethyl ester is an antioxidant, antimutagenic, anticarcinogenic, anti-inflammatory and antiviral. Specifically inhibits NF-κB activation and inhibits the growth of transformed cells. Also suppresses lipid peroxidation and inhibits ornithine decarboxylase, protein tyrosine kinase and lipoxygenase activities.

**Physical and Chemical Properties:**

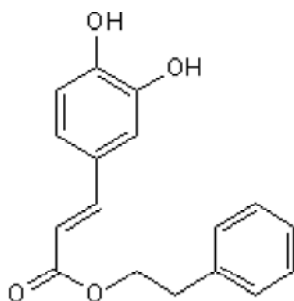
Batch Molecular Formula: C<sub>17</sub>H<sub>16</sub>O<sub>4</sub>

Batch Molecular Weight: 284.31

Physical Appearance: Pale yellow solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**References:**

**Fitzpatrick et al** (2001) Caffeic acid phenethyl ester, an inhibitor of nuclear factor-κB, attenuates bacterial peptidoglycan polysaccharide-induced colitis in rats. *J.Pharmacol.Exp.Ther.* **299** 915. PMID: 11714876.

**Natarajan et al** (1996) Caffeic acid phenethyl ester is a potent and specific inhibitor of activation of nuclear transcription factor NF-κB. *Proc.Natl.Acad.Sci.USA* **93** 9090.

**Sud'ina et al** (1993) Caffeic acid phenethyl ester as a lipoxygenase inhibitor with antioxidant properties. *FEBS Lett.* **329** 21. PMID: 7689063.

**Storage:** Store at -20°C

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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