# Caffeic Acid Phenethyl Ester

**Cat. No.:** B1644  
**CAS No.:** 104594-70-9  
**Formula:** C17H16O4  
**M.Wt:** 284.31  
**CAS No.:** 104594-70-9  

**Synonyms:**  

**Target:** Immunology/Inflammation  
**Pathway:** NF-κB  
**Storage:** Store at -20° C

## Solvent & Solubility

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Mass</th>
<th>1mg</th>
<th>5mg</th>
<th>10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMSO</td>
<td>1 mM</td>
<td>3.5173 mL</td>
<td>17.5864 mL</td>
<td>35.1729 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.7035 mL</td>
<td>3.5173 mL</td>
<td>7.0346 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.3517 mL</td>
<td>1.7586 mL</td>
<td>3.5173 mL</td>
</tr>
</tbody>
</table>

Preparation: Stock Solutions  

≥28.4 mg/mL in DMSO; insoluble in H2O; ≥108.6 mg/mL in EtOH

Please refer to the solubility information to select the appropriate solvent.

## Biological Activity

**Shortsummary:** NF-κB activation inhibitor

**IC₅₀ & Target:**

**Cell Viability Assay**

**Cell Line:** The human histiocytic cell line U937 cells  
**Preparation method:** The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.  
**Reacting conditions:** 0, 5, 10, 15, 25 and 30 μg/ml; 2 h
**Applications:**
In U937 cells, Caffeic Acid Phenethyl Ester (CAPE) inhibited the TNF-dependent activation of NF-KB in a dose-dependent manner, with maximum effect occurring at 25 µg/ml. CAPE (25 µg/ml) also blocked NF-KB activation induced by Phorbol Ester, Ceramide, Okadaic Acid, and Hydrogen Peroxide.

**Animal experiment**

<table>
<thead>
<tr>
<th>Animal models</th>
<th>CT26-bearing BALB/c male mice with pulmonary metastases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage form</td>
<td>10 mg/kg/day, intraperitoneal injection</td>
</tr>
</tbody>
</table>

**Applications:**
In CT26-bearing BALB/c male mice with pulmonary metastases, CAPE decreased tumor colonization in the lung. Mice treated with CAPE survived longer than untreated controls. CAPE reduced plasma VEGF levels by 53.2%.

**Other notes:**
Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

### Product Citations
See more customer validations on [www.apexbt.com](http://www.apexbt.com).

### References


### Caution

**FOR RESEARCH PURPOSES ONLY.**
**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.