Certificate of Analysis

Print Date: Feb 21th 2017

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Product Name: Caffeic acid phenethyl ester Catalog No.: 2743 Batch No.: 2

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: $C_{17}H_{16}O_4$ Batch Molecular Weight: 284.31

Physical Appearance: Yellow solid Solubility: DMSO to 10

DMSO to 100 mM ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

Melting Point:

HPLC:

Shows 99.2% purity

HNMR:

Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 71.82 5.67 Found 71.96 5.71

Product Information

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

Description:

Antioxidant, antimitogenic, anticarcinogenic, anti-inflammatory and antiviral. Specifically inhibits NF-kB 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: C₁₇H₁₆O₄ Batch Molecular Weight: 284.31 Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:

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.

References:

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

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

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.