

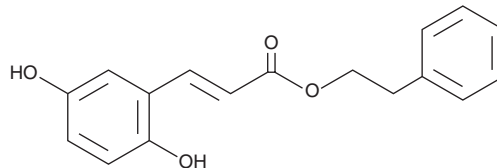
PRODUCT INFORMATION



2,5-Dihydroxycinnamic Acid phenethyl ester

Item No. 29736

CAS Registry No.: 179691-97-5
Formal Name: (2E)-3-(2,5-dihydroxyphenyl)-2-propenoic acid, 2-phenylethyl ester
MF: C₁₇H₁₆O₄
FW: 284.3
Purity: ≥98%
UV/Vis.: λ_{max}: 251, 280, 362 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

2,5-Dihydroxycinnamic acid phenethyl ester is supplied as a crystalline solid. A stock solution may be made by dissolving the 2,5-dihydroxycinnamic acid phenethyl ester in the solvent of choice, which should be purged with an inert gas. 2,5-Dihydroxycinnamic acid phenethyl ester is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 2,5-dihydroxycinnamic acid phenethyl ester in these solvents is approximately 30 mg/ml.

Description

2,5-Dihydroxycinnamic acid phenethyl ester is an inhibitor of 5-lipoxygenase (5-LO) with an IC₅₀ value of 0.33 μM for inhibition of 5-LO product synthesis in polymorphonuclear leukocytes (PMNLs) stimulated with the sarcoendoplasmic reticulum calcium ATPase (SERCA) inhibitor thapsigargin (Item No. 10522).¹ It scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH) radicals (IC₅₀ = 16.41 μM) in a cell-free assay. 2,5-Dihydroxycinnamic acid phenethyl ester selectively decreases viability of RCC4 and 786-O cells lacking the Von Hippel-Lindau (VHL) tumor suppressor gene (IC₅₀s = 8 and 34.8 μM, respectively) over cells homozygously expressing VHL (IC₅₀s = 99.6 and >100 μM, respectively). However, it also decreases viability of RCC10 VHL^{-/-} and RCC10 VHL^{+/+} cells (IC₅₀s = 5.04 and 0.96 μM, respectively). It increases the levels of pro-caspase-3a, LC3B-I, and LC3B-II in RCC4 VHL^{-/-} cells in a concentration-dependent manner.

Reference

1. Selka, A., Doiron, J.A., Lyons, P.A., *et al.* Discovery of a novel 2,5-dihydroxycinnamic acid-based 5-lipoxygenase inhibitor that induces apoptosis and may impair autophagic flux in RCC4 renal cancer cells. *Eur. J. Med. Chem.* **179**, 347-357 (2019).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/05/2025

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM