

PRODUCT INFORMATION



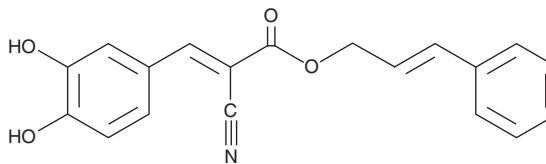
Cinnamyl-3,4-dihydroxy- α -Cyanocinnamate

Item No. 10858

CAS Registry No.: 132465-11-3
Formal Name: (2E)-2-cyano-3-(3,4-dihydroxyphenyl)-2-propenoic acid, 3-phenyl-2-propen-1-yl ester

Synonym: CDC
MF: C₁₉H₁₅NO₄
FW: 321.3

Purity: $\geq 97\%$
UV/Vis.: λ_{max} : 251, 376 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

Cinnamyl-3,4-dihydroxy- α -cyanocinnamate (CDC) is supplied as a crystalline solid. A stock solution may be made by dissolving the CDC in the solvent of choice, which should be purged with an inert gas. CDC is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CDC in ethanol is approximately 0.25 mg/ml and approximately 20 mg/ml in DMSO and DMF.

CDC is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CDC should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CDC has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

CDC is an inhibitor of 5-lipoxygenase (5-LO; IC₅₀ = 15 nM).¹ It is selective for 5-LO over 12-LO and 15-LO (IC₅₀s = 500 and 300 nM, respectively). CDC inhibits 5-LO product formation induced by the calcium ionophore A23187 (Item No. 11016) in isolated human polymorphonuclear leukocytes (PMNs), monocytes, and whole blood (IC₅₀s = 0.5, 0.45, and 1.5 μ M, respectively). *In vivo*, CDC (3.5 mg/kg) increases survival in a mouse model of lethal shock induced by platelet-activating factor (PAF). It also reduces pleural levels of leukotriene B₄ (LTB₄; Item No. 20110) in a rat model of carrageenan-induced pleurisy.

Reference

1. Pergola, C., Jazzar, B., Rossi, A., *et al.* Cinnamyl-3,4-dihydroxy- α -cyanocinnamate (CDC) is a potent inhibitor of 5-lipoxygenase. *J. Pharmacol. Exp. Ther.* **338**(1), 205-213 (2011).

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.

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