

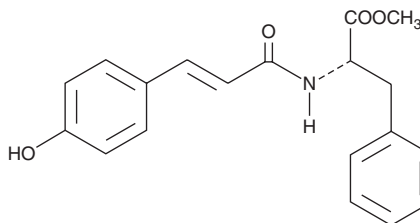
Product Information



CAY10486

Item No. 10006452

CAS Registry No.: 615264-52-3
Formal Name: N-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-L-phenylalanine, methyl ester
Synonym: 4-Hydroxycinnamic acid (L-phenylalanine methyl ester) amide
MF: C₁₉H₁₉NO₄
FW: 325.4
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that CAY10486 be stored as supplied at -20°C. It should be stable for at least two years.

CAY10486 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10486 in an organic solvent purged with an inert gas. CAY10486 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of CAY10486 in these solvents is approximately 20 mg/ml.

CAY10486 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10486 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CAY10486 has a solubility of approximately 0.5 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Acyl-Coenzyme A: cholesterol acyltransferase-1 and -2 (ACAT-1 and ACAT-2) catalyze the formation of cholesterol esters from cholesterol and long chain fatty acyl-coenzyme A, and may play a role in the development of atherosclerosis.^{1,2} CAY10486 inhibits human ACAT-1 and ACAT-2 equally with an IC₅₀ of approximately 60 μM.³ It also inhibits copper-mediated oxidation of low density lipoproteins by about 28% at a concentration of 3 μM.³

References

1. Rudel, L.L., Lee, R.G., and Cockman, T.L. Acyl coenzyme A: Cholesterol acyltransferase types 1 and 2: Structure and function in atherosclerosis. *Curr. Opin. Lipidol.* **12**, 121-127 (2001).
2. Lee, R.G., Willingham, M.C., Davis, M.A., *et al.* Differential expression of ACAT1 and ACAT2 among cells within liver, intestine, kidney, and adrenal of nonhuman primates. *J. Lipid Res.* **41**, 1991-2001 (2000).
3. Lee, S., Han, J.-M., Kim, H., *et al.* Synthesis of cinnamic acid derivatives and their inhibitory effects on LDL-oxidation, acyl-CoA: Cholesterol acyltransferase-1 and -2 activity, and decrease of HDL-particle size. *Bioorg. Medicinal Chem. Letters* **14**, 4677-4681 (2004).

Related Products

Caffeic Acid - Item No. 70602 • 3,4-Dihydroxyphenyl ethanol - Item No. 70604 • Phenethyl Caffeate - Item No. 70750 • ACAT-2 Polyclonal Antibody - Item No. 100027 • ACAT-1 Polyclonal Antibody - Item No. 100028 • CAY10487 - Item No. 10006480 • CAY10485 - Item No. 10006482

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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