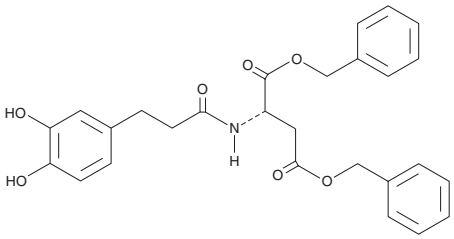
PRODUCT INFORMATION

CAY10485

Item No. 10006482

CAS Registry No.: 615264-62-5
Formal Name: N-[3-(3,4-dihydroxyphenyl)-1-oxopropyl]-L-aspartic acid, *bis*(phenylmethyl) ester
Synonym: 3,4-dihydroxy Hydrocinnamic acid (L-Aspartic acid dibenzyl ester) amide
MF: $C_{27}H_{27}NO_7$
FW: 477.5
Purity: ≥98%
UV/Vis.: λ_{max}: 208, 243, 299, 326 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

CAY10485 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10485 in the solvent of choice, which should be purged with an inert gas. CAY10485 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of CAY10485 in these solvents is approximately 20 mg/ml.

CAY10485 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10485 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. CAY10485 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

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] CAY10485 inhibits human ACAT-1 and ACAT-2 with an IC50 values of 95 and 81 µM, respectively.[3] It also inhibits copper-mediated oxidation of low density lipoproteins by 91% at a concentration of 2 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(2)** , 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(2)**, 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).

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