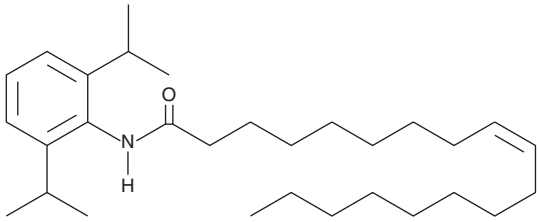
PRODUCT INFORMATION

Oleic Acid-2,6-diisopropylanilide

Catalog No. 10006782

CAS Registry No.: 140112-65-8
Formal Name: N-[2,6-*bis*(1-methylethyl)phenyl]-9Z-octadecenamide
MF: $C_{30}H_{51}NO$
FW: 441.7
Purity: ≥98%
Supplied as: A 50 mg/ml solution in methyl acetate
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Oleic acid-2,6-diisopropylanilide is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of oleic acid-2,6-diisopropylanilide in these solvents is at least 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of oleic acid-2,6-diisopropylanilide is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of oleic acid-2,6-diisopropylanilide in PBS (pH 7.2) is at least 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

AcylCoA:cholesterol acyltransferase (ACAT) is an intracellular cholesteryl ester synthase tied closely to the absorption of dietary cholesterol.[1] Oleic acid-2,6-diisopropylanilide is an inhibitor of ACAT with an IC_{50} of 7 nM.[2] When co-administered to rabbits or rats fed a high fat, high cholesterol diet, oleic acid-2,6-diisopropylanilide decreased low-density lipoprotein and elevated high-density lipoprotein levels when administered at 0.05%.

References

1. Suckling, K.E. and Stange, E.F. Role of acyl-CoA: Cholesterol acyltransferase in cellular cholesterol metabolism. *J. Lipid Res.* **26**, 647-671 (1985).
2. Roth, B.D., Blankley, C.J., Hoefle, M.L., *et al.* Inhibitors of acyl-CoA: Cholesterol acyltransferase. 1. Identification and structure-activity relationship of a novel series of fatty acid anilide hypocholesterolemic agents. *J. Med. Chem.* **35**, 1609-1617 (1992).

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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