

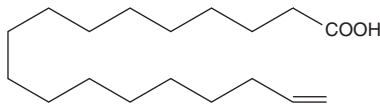
Product Information



17-Octadecynoic Acid

Catalog No. 90270

CAS Registry No.: 34450-18-5
Formal Name: 17-Octadecynoic acid
Synonyms: ODYA; 17-ODA
MF: C₁₈H₃₂O₂
FW: 280.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that 17-Octadecynoic acid (17-ODA) be stored as supplied at -20°C. It should be stable for at least one year.

17-ODA is supplied as a crystalline solid. A stock solution may be made by dissolving the 17-ODA in the solvent of choice. 17-ODA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 17-ODA in these solvents is approximately 100 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 aqueous solution of 17-ODA is needed, the crystalline solid can be directly dissolved in basic buffers at a concentration of approximately 1 mg/ml. The solubility of 17-ODA in PBS (pH 7.2) is less than 100 µg/ml. Store aqueous solutions of 17-ODA on ice and use within 12 hours of preparation. Although the aqueous solutions of 17-ODA may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

17-ODA is a fatty acid analog with an ω-terminal acetylene. It is a suicide inhibitor of leukotriene B₄ 20-hydroxylase and renal CYP450 ω-hydroxylase.^{1,2} At a concentration of 10 µM, 17-ODA completely inhibits the bradykinin-dependent transport of sodium chloride in rat TALH cells.²

References

1. Shak, S., Reich, N.O., Goldstein, I.M., *et al.* Leukotriene B₄ ω-hydroxylase in human polymorphonuclear leukocytes. Suicidal inactivation by acetylenic fatty acids. *J. Biol. Chem.* **260**, 13023-13028 (1985).
2. Grider, J.S., Falcone, J.C., Kilpatrick, E.L., *et al.* P450 arachidonate metabolites mediate bradykinin-dependent inhibition of NaCl transport in the rat thick ascending limb. *Can. J. Physiol. Pharmacol.* **75**, 91-96 (1997).

Related Product

12(S)-hydroxy-16-Heptadecynoic Acid - Cat. No. 31570

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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