16-hydroxy Hexadecanoic Acid

Item No. 9000789

CAS Registry No.: 506-13-8
Formal Name: 16-hydroxy-hexadecanoic acid
Synonyms: 16-Hydroxy Palmitic Acid, Juniperic Acid

MF: C16H32O3
FW: 272.4
Purity: >98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures

For long term storage, we suggest that 16-hydroxy hexadecanoic acid be stored as supplied at -20°C. It should be stable for at least two years.

16-hydroxy Hexadecanoic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the 16-hydroxy hexadecanoic acid in the solvent of choice. 16-hydroxy Hexadecanoic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of 16-hydroxy hexadecanoic acid in ethanol is approximately 2.5 mg/ml and approximately 20 mg/ml in DMSO and DMF.

16-hydroxy Hexadecanoic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 16-hydroxy hexadecanoic acid should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 16-hydroxy Hexadecanoic acid has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

16-hydroxy Hexadecanoic acid is a metabolite of the saturated fatty acid palmitic acid (16:0) that has been hydroxylated on its terminal (ω) carbon. It is produced by ω-hydroxylation of palmitic acid by cytochrome P450 in both plants and animals.\(^1\)\(^2\) In plants, it is commonly a component of cutin.\(^2\)\(^5\) In both plants and animals, it is produced by ω-hydroxylation of arachidonic acid, fatty acid, and prostaglandins.\(^5\)

References


Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/9000789](http://www.caymanchem.com/catalog/9000789)

**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.

**WARRANTY AND LIMITATION OF REMEDY**

Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereto. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer’s exclusive remedy and Cayman’s sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman’s option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.