

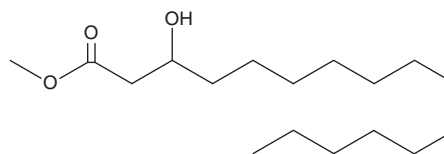
PRODUCT INFORMATION



3-hydroxy Palmitic Acid methyl ester

Item No. 20108

CAS Registry No.: 51883-36-4
Formal Name: 3-hydroxy-hexadecanoic acid, methyl ester
Synonyms: 3-hydroxy PAME,
3-hydroxy PA methyl ester, SFE 17:0;O
MF: C₁₇H₃₄O₃
FW: 286.5
Purity: ≥98%
UV/Vis.: λ_{max}: 209 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

3-hydroxy Palmitic acid methyl ester (3-hydroxy PAME) is supplied as a crystalline solid. A stock solution may be made by dissolving the 3-hydroxy PAME in the solvent of choice. 3-hydroxy PAME is soluble in organic solvents such as ethanol, which should be purged with an inert gas. The solubility of 3-hydroxy PAME in this solvent is approximately 0.5 mg/ml.

3-hydroxy PAME is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 3-hydroxy PAME should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 3-hydroxy PAME has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

3-hydroxy PAME is an esterized long-chain fatty acid involved in quorum sensing in *R. solanacearum*, a bacteria that causes lethal wilting in plants.¹ 3-hydroxy PAME (175 nM) increases levels of PhcA-regulated virulence factors, greater than 20-, 30-, and 25-fold for EPS I, EGL, and PME, respectively, in the AW1-83 strain of *R. solanacearum*.²

References

1. Archari, G.A. and R. Ramesh. Characterization of bacteria degrading 3-hydroxy palmitic acid methyl ester (3OH-PAME), a quorum sensing molecule of *Ralstonia solanacearum*. *Lett. Appl. Microbiol.* **60**(5), 447-455 (2015).
2. Flavier, A., Clough, S.J., Schell, M.A., et al. Identification of 3-hydroxypalmitic acid methyl ester as a novel autoregulator controlling virulence in *Ralstonia solanacearum*. *Mol. Microbiol.* **26**(2), 251-259 (1997).

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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