

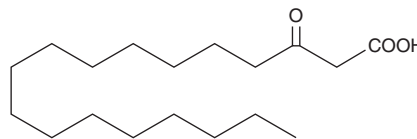
PRODUCT INFORMATION



3-oxo Stearic Acid

Item No. 14807

CAS Registry No.: 16694-29-4
Formal Name: 3-oxo-octadecanoic acid
Synonyms: 3-oxo Octadecanoic Acid,
β-keto Stearic Acid
MF: C₁₈H₃₄O₃
FW: 298.5
Purity: ≥90%
UV/Vis.: λ_{max}: 245 nm
Supplied as: A 1 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

3-oxo Stearic acid is supplied as a solution in methyl acetate. A stock solution may be made by dissolving the 3-oxo stearic acid in the solvent of choice, which should be purged with an inert gas. 3-oxo Stearic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 3-oxo stearic acid in these solvents is approximately 20, 10, and 30 mg/ml, respectively.

Description

3-oxo Stearic acid is an intermediate in the dissociated (or type II) fatty acid biosynthesis that occurs in bacteria and plants.¹ This β-keto fatty acid is generated following the reaction of hexadecenoyl-acyl-carrier-protein (ACP) with malonyl-ACP by the enzyme β-ketoacyl-ACP synthase II, which produces 3-oxo octadecenoyl-ACP.² Removal of the ACP group by ACP hydrolase produces the free acid.

References

1. Parsons, J.B. and Rock, C.O. Bacterial lipids: Metabolism and membrane homeostasis. *Prog. Lipid Res.* **52(3)**, 249-276 (2013).
2. Marrakchi, H., Zhang, Y.-M., and Rock, C.O. Mechanistic diversity and regulation of type II fatty acid synthesis. *Biochem. Soc. Trans.* **30(Pt 6)**, 1050-1055 (2002).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM