

## Produktinformation



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Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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- Expressversand

### SZABO-SCANDIC HandelsgmbH

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# **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	0
MF:	C <sub>18</sub> H <sub>34</sub> O <sub>3</sub>	СООН
FW:	298.5	
Purity:	≥90%	
UV/Vis.:	λ <sub>max</sub> : 245 nm	
Supplied as:	A solution in ethanol	
Storage:	-20°C	
Stability:	≥1 year	
Information represents	the product specifications. Batch	specific analytical results are provided on each certificate of anal

#### Laboratory Procedures

3-oxo Stearic acid is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 3-oxo stearic acid in these solvents is approximately 10 and 30 mg/ml, respectively.

3-oxo Stearic acid is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

#### Description

3-oxo Stearic acid is an intermediate in the dissociated (or type II) fatty acid biosynthesis that occurs in bacteria and plants.<sup>1</sup> This  $\beta$ -keto fatty acid is generated following the reaction of hexadecenoyl-acylcarrier-protein (ACP) with malonyl-ACP by the enzyme β-ketoacyl-ACP synthase II, which produces 3-oxo octadecenoyI-ACP.<sup>2</sup> 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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