

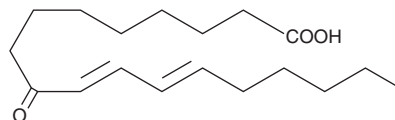
PRODUCT INFORMATION



9-oxo-10(E),12(E)-Octadecadienoic Acid

Item No. 10685

CAS Registry No.: 54232-58-5
Formal Name: 9-oxo-10E,12E-octadecadienoic acid
Synonym: 9-oxo ODA
MF: C₁₈H₃₀O₃
FW: 294.4
Purity: ≥90%
UV/Vis.: λ_{max}: 276 nm
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

9-oxo-10(E),12(E)-Octadecadienoic acid (9-oxo ODA) 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 9-oxo ODA in these solvents is approximately 16 mg/ml.

9-oxo ODA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 9-oxo ODA should be diluted with the aqueous buffer of choice. 9-oxo ODA has a solubility of 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

9-oxo ODA is a natural agonist, abundant in tomatoes, that activates PPAR α at 10-20 μ M.¹ It is produced from conjugated linoleic acid, which is also known to be a PPAR α agonist.^{1,2} 9-oxo ODA increases the expression of genes regulated by PPAR α in primary mouse hepatocytes, altering lipid metabolism.¹

References

1. Kim, Y.I., Hirai, S., Takahashi, H., *et al.* 9-oxo-10(E),12(E)-octadecadienoic acid derived from tomato is a potent PPAR α agonist to decrease triglyceride accumulation in mouse primary hepatocytes. *Mol. Nutr. Food Res.* **55(4)**, 585-593 (2010).
2. Moya-Camarena, S.Y., Heuvel, J.P.V., Blanchard, S.G., *et al.* Conjugated linoleic acid is a potent naturally occurring ligand and activator of PPAR α . *J. Lipid Res.* **40(8)**, 1426-1433 (1999).

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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