

PRODUCT INFORMATION



10-POHSA

Item No. 19974

Formal Name: (Z)-10-(hexadec-9-enoyloxy)
octadecanoic acid

MF: C₃₄H₆₄O₄

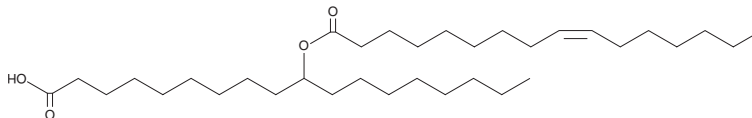
FW: 536.9

Purity: ≥95%

Supplied as: A solution in methyl acetate

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

10-POHSA is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of 10-POHSA in ethanol and DMF is approximately 20 mg/ml and approximately 15 mg/ml in DMSO.

10-POHSA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 10-POHSA should be diluted with the aqueous buffer of choice. 10-POHSA 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

10-POHSA is a newly identified endogenous lipid that belongs to a collection of branched fatty acid esters of hydroxy fatty acids (FAHFAs). It is a FAHFA in which palmitoleic acid (Item No. 10009871) is esterified to 10-hydroxy stearic acid. Among the FAHFA family members, PAHSAs are the most abundant in the adipose tissue of glucose tolerant AG4OX mice, which overexpress the Glut4 glucose transporter specifically in adipose tissue.¹ As other FAHFAs improve glucose tolerance, stimulate insulin secretion, and have anti-inflammatory effects, 10-POHSA may be a bioactive lipid with roles in metabolic syndrome and inflammation.¹

Reference

1. Yore, M.M., Syed, I., Moraes-Vieira, P.M., *et al.* Discovery of a class of endogenous mammalian lipids with anti-diabetic and anti-inflammatory effects. *Cell* **159**(2), 318-332 (2014).

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