

PRODUCT INFORMATION



9-PAHPA

Item No. 17038

CAS Registry No.: 1636134-70-7
Formal Name: 9-[(1-oxohexadecyl)oxy]-
hexadecanoic acid

MF: C₃₂H₆₂O₄

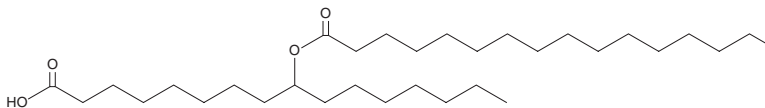
FW: 510.8

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

9-PAHPA 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 9-PAHPA in ethanol and DMF is approximately 20 mg/ml and approximately 15 mg/ml in DMSO.

9-PAHPA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of 9-PAHPA should be diluted with the aqueous buffer of choice. 9-PAHPA 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

Branched fatty acid esters of hydroxy fatty acids (FAHFAs) are newly identified endogenous lipids regulated by fasting and high-fat feeding and associated with insulin sensitivity.¹ Structurally, these esters are comprised of a C-16 or C-18 fatty acid (e.g., palmitoleic, palmitic, oleic, or stearic acid) linked to a hydroxylated C-16 or C-18 lipid. 9-PAHPA is a FAHFA in which palmitic acid is esterified to 9-hydroxy palmitic 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, 9-PAHPA 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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