

Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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Lieferung & Zahlungsart siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION



9-PAHSA ¹³C₄ Item No. 17725

Formal Name:	9-[(1-oxohexadecyl-1,2,3,4- $^{13}C_{4}$)oxy]-octadecanoic acid
MF:	$C_{30}[^{13}C]_{4}H_{66}O_{4}$
FW:	542.9 o H G H G H G H G H G H G H G H G H G H
Purity:	≥95% _{H0}
Supplied as:	A solution in methyl acetate
Storage:	-20°C
Stability:	≥1 year
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.	

Laboratory Procedures

9-PAHSA ${}^{13}C_{4}$ 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-PAHSA ¹³C₄ in ethanol and DMF is approximately 20 mg/ml and approximately 15 mg/ml in DMSO.

9-PAHSA ¹³C₄ is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, evaporate the methyl acetate and dissolve in ethanol. The ethanoic solution of 9-PAHSA ¹³C₄ should be diluted with the aqueous buffer of choice. 9-PAHSA ${}^{13}C_4$ 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-PAHSA (Item No. 17037) is a FAHFA in which palmitic acid is esterified to 9-hydroxy stearic acid. PAHSAs are the most abundant forms of FAHFA in serum as well as white and brown adipose tissues of glucose tolerant AG4OX mice, which overexpress Glut4 specifically in adipose tissue.¹ 9-PAHSA is the predominant isomer of PAHSA in wild type and AG4OX mice.¹ It is found in humans and is reduced in the serum and adipose tissues of insulin-resistant humans.¹ 9-PAHSA improves glucose tolerance, stimulates insulin secretion, and has anti-inflammatory effects in mice.¹ 9-PAHSA ¹³C₄ is an isotopically enriched form of this polyunsaturated fatty acid with carbon-13 occurring at positions 1, 2, 3,and 4. It is intended for use as an internal standard for the quantification of 9-PAHSA by NMR or GC- or LC-mass spectrometry.

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.

SAFFTY 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.

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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