



10-PAHSA $^{13}\text{C}_4$

Cat. No.:	OB0626WX-2173
Appearance:	Liquid
Purity:	≥95%
Identity:	Confirmed by NMR and HPLC.
Size:	100 µg; 250 µg; 500 µg; 1 mg

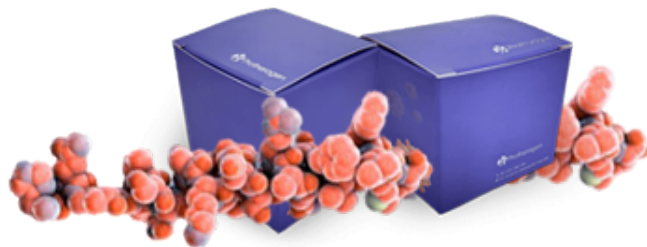
This product is for research use only and is not intended for diagnostic use.

Product Overview

Description	10-PAHSA $^{13}\text{C}_4$ is a stable isotope-labeled internal standard designed for the precise mass spectrometric quantification of native 10-PAHSA. The corresponding unlabeled molecule is an endogenous branched fatty acid ester of hydroxy fatty acids (FAHFA) combining palmitic acid and 10-hydroxy stearic acid; this lipid class is heavily expressed within adipose tissue and belongs to a family known to modulate glucose tolerance, insulin secretion, and localized inflammatory cascades.
Formulation	Methyl acetate solution (1 mg/mL)
Labeling	Stable isotope-labeled
Synonyms	10-[(1-oxohexadecyl-1,2,3,4- $^{13}\text{C}_4$)oxy]-octadecanoic acid; 10-(1,2,3,4- $^{13}\text{C}_4$)hexadecanoyloxyoctadecanoic acid; 2705244-93-3
CAS No.	2705244-93-3
Compound CID	137699997
Formula	$\text{C}_{30}^{13}\text{C}_4\text{H}_{66}\text{O}_4$
Formula Weight	542.9

Specification

Solubility in DMSO	15 mg/mL
Solubility in Ethanol	20 mg/mL
Solubility in DMF	20 mg/mL
Solubility in Other Solvents	Ethanol:PBS mixture: 0.5 mg/mL



IUPAC Name	10-(1,2,3,4- ¹³ C ₄)hexadecanoyloxyoctadecanoic acid
InChI	InChI=1S/C34H66O4/c1-3-5-7-9-11-12-13-14-15-16-17-23-27-31-34(37)38-32(28-24-20-10-8-6-4-2)29-25-21-18-19-22-26-30-33(35)36/h32H,3-31H2,1-2H3,(H,35,36)/i23+1,27+1,31+1,34+1
InChI Key	UVHRDGDWHIDFWID-CGRMNBRFSA-N
Canonical SMILES	CCCCCCCC(O[¹³ C])([¹³ CH ₂][¹³ CH ₂][¹³ CH ₂]CCCCCCCCCCC)=O)CCCCCCCC(O)=O
Stability	1 year
Storage	Storage at -20°C.
Applications	10-PAHSA ¹³ C ₄ is used as an isotopically labeled internal standard for quantitative lipidomics analysis of palmitic acid-hydroxy stearic acid (PAHSA) lipids. Stable isotope labeling enables accurate normalization and quantification of endogenous PAHSA levels in biological samples using LC-MS/MS-based workflows. This compound is valuable for studying branched fatty acid ester of hydroxy fatty acid (FAHFA) metabolism, lipid signaling pathways, and metabolic regulation associated with glucose and energy homeostasis.