

Product Data Sheet

Product Name: 9-PAHSA-d31

Cat. No.: GC46763

Chemical Properties

Cas. No. 2748208-06-0

[illegible]

Formula	C34H35D31O4	M.Wt	570.1
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Solubility	DMF: 20 mg/ml,DMSO: 15 mg/ml,Ethanol: 20 mg/ml,Ethanol:PBS(pH 7.2) (1:1): 0.5 mg/ml	Storage	Store at -20°C
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General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
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Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.
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Structure



Background

9-PAHSA-d₃₁ contains 31 deuterium atoms at the 2, 2', 3, 3', 4, 4', 5, 5', 6, 6', 7, 7', 8, 8', 9, 9', 10, 10', 11, 11', 12, 12', 13, 13', 14, 14', 15, 15', 16, 16, and 16 positions. It is intended for use as an internal standard for the quantification of 9-PAHSA by GC- or LC-mass spectrometry. 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 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

Caution: Product has not been fully validated for medical applications. For research use only.

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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

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 effectsCell.159(2)318-332(2014)

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