



EOS-d₉ (d18:1-d₉/32:0/18:2)

Cat. No.:	OB0626WX-2007
Appearance:	Solid
Purity:	≥99% (deuterated forms, d1-d9)
Identity:	Confirmed by TLC.
Size:	1 mg; 2 mg; 5 mg; 10 mg

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

Product Overview

Description	EOS-d ₉ (d18:1-d ₉ /32:0/18:2) is a highly specialized, deuterated stable isotope internal standard designed for the precise mass spectrometric quantification of native EOS ceramides. The corresponding unlabeled molecule is a crucial ultra-long-chain esterified ceramide within the mammalian stratum corneum that undergoes sequential, highly specific lipoxygenase-mediated oxygenation and hydrolysis to covalently bind the corneocyte protein envelope, sealing the epidermal barrier against water loss.
Labeling	Stable isotope-labeled
Synonyms	(9Z,12Z)-9,12-octadecadienoic acid, 32-[[[(1S,2R,3 E)-2-hydroxy-1-(hydroxymethyl)-3-heptadecen-1-yl-14,14,15,15,16,16,17,17,17-d ₉]amino]-32-oxodotriacontyl ester; N-(32-linoleoyloxy-dotriacontanoyl)-Sphingosine-d ₉ ; 2692624-26-1
CAS No.	2692624-26-1
Compound CID	171042783
Formula	C ₆₈ H ₁₂₀ D ₉ NO ₅
Formula Weight	1049.8

Specification

IUPAC Name	[32-[[[(E,2S,3R)-15,15,16,16,17,17,18,18,18-nonadeuterio-1,3-dihydroxyoctadec-4-en-2-yl]amino]-32-oxodotriacontyl] (9E,12E)-octadeca-9,12-dienoate
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InChI	InChI=1S/C68H129NO5/c1-3-5-7-9-11-13-15-17-33-38-42-46-50-54-58-62-68(73)74-63-5 9-55-51-47-43-39-35-32-30-28-26-24-22-20-18-19-21-23-25-27-29-31-34-37-41-45-49- 53-57-61-67(72)69-65(64-70)66(71)60-56-52-48-44-40-36-16-14-12-10-8-6-4-2/h11,13 ,17,33,56,60,65-66,70-71H,3-10,12,14-16,18-32,34-55,57-59,61-64H2,1-2H3,(H,69,72)/b13-11-,33-17- ,60-56+/t65-,66+/m0/s1/i2D3,4D2,6D2,8D2
InChI Key	NKZDGPMKCOVGRH-SIBFFXIQSA-N
Canonical SMILES	OC[C@H](NC(CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCOC(CCCCCC/C=C\C/C=C\C\CCCC)=O)=O)[C@H] (O)/C=C/CCCCCCCC([2H])([2H])C([2H])([2H])C([2H])([2H])C([2H])([2H])[2H]
Stability	1 year
Storage	Storage at -20°C.
Applications	EOS-d ₉ (d18:1-d ₉ /32:0/18:2) serves as an isotope-labeled internal standard for quantitative ceramide analysis and supports isotope dilution lipidomics, LC-MS/MS method development, and normalization strategies for epidermal ceramide species profiling.