



10-Nitrooleate-d₁₇

Cat. No.:	OB0626WX-2542
Appearance:	Liquid
Purity:	≥99% (deuterated forms, d1-d17)
Identity:	Confirmed by IR, TLC, and HPLC.
Size:	50 µg; 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-Nitrooleate-d ₁₇ is an isotopically enriched internal standard featuring seventeen deuterium atoms across its alkyl chain, tailored for the high-precision quantification of 10-nitrooleate via chromatography-mass spectrometry. The native compound represents a principal endogenous nitrated fatty acid signaling molecule that modulates metabolic pathways, serving as a functional ligand for PPARγ activation and participating in nitric oxide release mechanics.
Formulation	Ethanol solution (500 µg/mL)
Labeling	Stable isotope-labeled
Synonyms	10-nitro-9E-octadecenoic-11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18, 18-d ₁₇ acid; 10-Nitrooleic Acid-d ₁₇ ; 10-nitro-9-trans-Octadecenoic Acid-d ₁₇ ; 10-Nitrooleate-d ₁₇ (nitrate); 2749984-40-3; (E)-11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-heptadecadeuterio-10-nitrooctadec-9-enoic acid; 10-nitro-9E-octadecenoic-11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-d ₁₇ acid; (E)-11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-heptadecadeuterio-10-nitro-octadec-9-enoic acid
CAS No.	2749984-40-3
Compound CID	137699803
Formula	C ₁₈ H ₁₆ D ₁₇ NO ₄
Formula Weight	344.6

Specification

λmax	256 nm
Solubility in Ethanol	50 mg/mL
IUPAC Name	(E)-11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-heptadecadeuterio- 10-nitrooctadec-9-enoic acid
InChI	InChI=1S/C18H33NO4/c1-2-3-4-5-8-11-14-17(19(22)23)15-12-9-6-7-10-13-16-18(20)21/h15H,2-14,16H2,1H3,(H,20,21)/b17-15+/i1D3,2D2,3D2,4D2,5D2,8D2,11D2,14D2
InChI Key	WRADPCFZZWXOTI-RAGXLMKJSA-N
Canonical SMILES	[2H]C(C([2H])([2H])C([2H])([2H])C([2H])([2H])C([2H])([2H])C([2H])([2H])C([2H])([2H])C([2H])([2H])C([2H])([2H])[2H])([2H])[2H])/C([N+])([O-])=O)=CCCCCCCC(O)=O
Stability	1 year
Storage	Storage at -20°C.
Applications	10-Nitrooleate-d ₁₇ serves as a deuterium-labeled analytical reference standard for quantitative determination of nitro-fatty acids. It facilitates isotope dilution mass spectrometry, chromatographic calibration, lipidomic profiling, and studies of nitrated lipid metabolism.