

CERTIFICATE of ANALYSIS



1-Palmitoyl-2-linoleoyl-*sn*-glycero-3-phosphoethanolamine Vicinal Diols MaxSpec® LC-MS Mixture

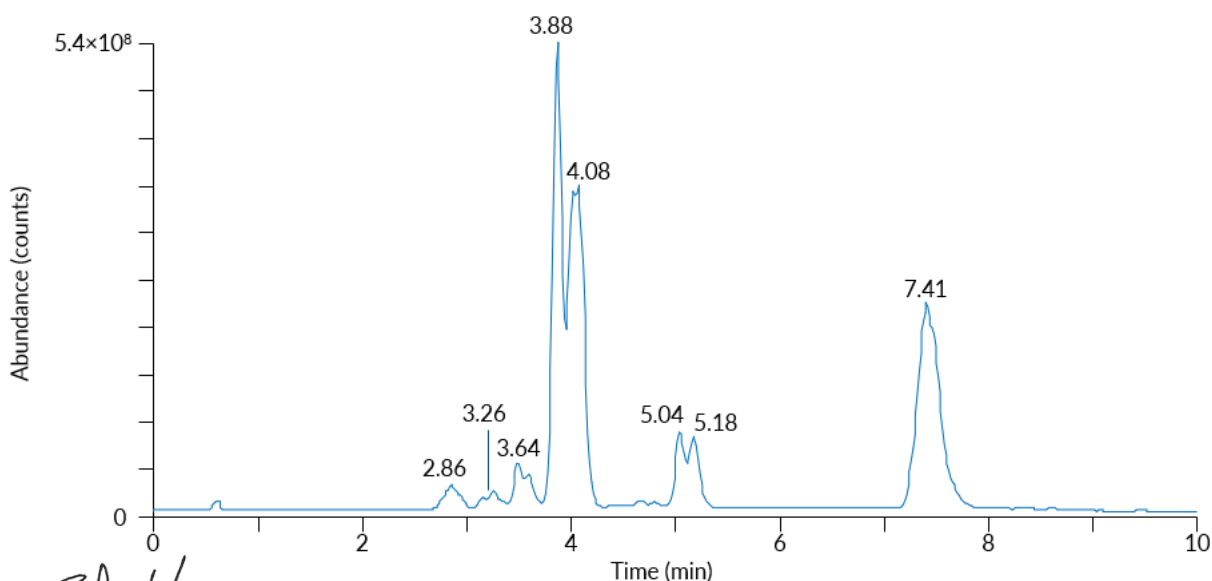
Item No.:	46039
Batch No.:	0823066
Expiry Date:	30JUN2028 (valid from date of certification)
Supplied as:	A solution in ethanol (100 µg/ml of each compound; nominal); in amber ampules See table
Contents:	Not less than 1 ml. Ampules are overfilled. It is advised that labs use measured volumes.
Volume per Ampule:	Store upright and unopened at -20°C. Warm to room temperature prior to opening.
Storage & Handling:	

Description

MaxSpec® LC-MS mixtures are purpose-built for qualitative mass spectrometry applications. This solution has been prepared using gravimetric and volumetric preparation procedures from a combination of neat and formulated pure standards, and is supplied in ampules sealed under argon. Ongoing stability tests are performed to ensure the presence of each analyte throughout the shelf life of the product. Follow recommended storage and handling conditions.

Quality Information

Test	Limit	Result	Meets Specification
Negative ESI-HRMS	Identities confirmed	Pass	✓



Approval:

Title: Manager, Analytical Chemistry

Certification Date: 30JUN2026

Cayman Chemical certifies that this product meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiry date when stored unopened as recommended.

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Quality Control Table

Item No.	Item Name	Formula	RT (min)	Precursor Ion (m/z)	Identifying Fragment (m/z)
	1-Palmitoyl-2-(9,10,12,13-tetrahydroxyoctadecanoyl)-sn-glycero-3-phosphoethanolamine	C ₃₉ H ₇₈ NO ₁₂ P	2.86	782.5	347.2
	1-Palmitoyl-2-(9,10-epoxy-12,13-dihydroxyoctadecanoyl)-sn-glycero-3-phosphoethanolamine	C ₃₉ H ₇₆ NO ₁₁ P	3.26-3.64	764.5	329.2
	1-Palmitoyl-2-(12,13-epoxy-9,10-dihydroxyoctadecanoyl)-sn-glycero-3-phosphoethanolamine	C ₃₉ H ₇₆ NO ₁₁ P	3.26-3.64	764.5	329.2
	1-Palmitoyl-2-(12,13-dihydroxy-9-octadecenoyl)-sn-glycero-3-phosphoethanolamine	C ₃₉ H ₇₆ NO ₁₀ P	3.88	748.5	183.2
	1-Palmitoyl-2-(9,10-dihydroxy-12-octadecenoyl)-sn-glycero-3-phosphoethanolamine	C ₃₉ H ₇₆ NO ₁₀ P	4.08	748.5	201.2
45889	1-Palmitoyl-2-(9,10;12,13-diepoxyoctadecanoyl)-sn-glycero-3-phosphoethanolamine	C ₃₉ H ₇₄ NO ₁₀ P	4.02	746.5	311.2
	1-Palmitoyl-2-(9,10-epoxy-12-octadecenoyl)-sn-glycero-3-phosphoethanolamine	C ₃₉ H ₇₄ NO ₉ P	5.04-5.18	730.5	295.2
	1-Palmitoyl-2-(12,13-epoxy-9-octadecenoyl)-sn-glycero-3-phosphoethanolamine	C ₃₉ H ₇₄ NO ₉ P	5.04-5.18	730.5	295.2
10007072	1-Palmitoyl-2-linoleoyl-sn-glycero-3-phosphoethanolamine	C ₃₉ H ₇₄ NO ₈ P	7.41	714.5	279.2
LC-MS/MS Conditions: Thermo Exploris Orbitrap 240					
Mobile Phase A: Methanol/water 60:40 (v/v), 10 mM ammonium formate, 0.1% formic acid					
Mobile Phase B: Methanol/isopropanol 10:90 (v/v), 10 mM ammonium formate, 0.1% formic acid					
Column: Phenomenex Kinetex C18 2.1 x 100 mm, 2.6 μm, 100 Å			Flow Rate: 200 μL/min		
Gradient: (%B,min): 40%B for 0.5 min, 40% to 60% B over 1.5 min, 60% to 95% B over 4 min, hold at 95% B for 4 min, hold at 40% B for 4 min					
Negative Electrospray Ionization		MS Experiment: MS/MS			

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Revision History

Revision No.	Date	Reason for Revision
01	30JUN2026	Initial version

Disclaimers

Material Safety Data

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some but not all of the information required for the safe and proper use of this material. Before use, review the complete Material Safety Data Sheet, which has been sent via email to your institution.

Warranty and Limitation of Remedy

Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

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Buyer's exclusive remedy and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specification.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver of Buyer of all claims hereunder with respect to said material. For further details, please refer to our Warranty and Limitations of Remedy located on our website and in our catalog.

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