



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

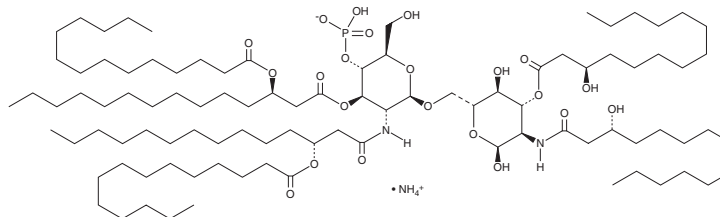
PRODUCT INFORMATION



MPLA

Item No. 25998

CAS Registry No.: 1246298-63-4
Formal Name: 3-[[[(3R)-3-hydroxytetradecanoate], 2-deoxy-6-O-[2-deoxy-3-O-[[[(3R)-1-oxo-3-[[[(1-oxotetradecyl)oxy]tetradecyl]amino]-4-O-phosphono-β-D-glucopyranosyl]-2-[[[(3R)-3-hydroxy-1-oxotetradecyl]amino]-α-D-glucopyranose, monoammonium salt



Synonyms: Glucopyranosyl Lipid A, Monophosphoryl Lipid A

MF: C₉₆H₁₈₀N₂O₂₂P • NH₄
FW: 1,763.5

Supplied as: A solution in sterile, double distilled water

Storage: 4°C

Stability: ≥2 years

Special Conditions: Do not freeze

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

MPLA is supplied as a solution in sterile, double distilled water. To change the solvent, simply evaporate the sterile, double distilled water under a gentle stream of nitrogen and immediately add the solvent of choice. MPLA is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml.

Description

MPLA is a synthetic derivative of lipid A, a component of bacterial LPS, that is hexa-acylated in contrast to lipid A monophosphoryl from *S. minnesota* R595 (Item No. 25848), which can be hepta-, hexa-, or penta-acylated.^{1,2} MPLA is an agonist of toll-like receptor 4 (TLR4).² Intramuscular injection of MPLA (5 μg/100 μl) in mice increases injection site transcription of MyD88- and TRIF-dependent genes as well as genes encoding cytokines and cytokine receptors, chemokines, and molecules involved in the complement pathway and antigen presentation.² It also increases the number of CD3⁺ T cells and CD11c⁺ GR1⁺ dendritic cells recruited to draining lymph nodes and increases serum levels of CCL2/MCP-1, CXCL1, CSF3, IL-6, and IL-10 by more than 10-fold compared to control animals. Emulsions containing MPLA have demonstrated efficacy as vaccine adjuvants in several mouse models, enhancing immune responses to HIV gp140 antigen and providing protection against *M. tuberculosis* infection.^{3,4}

References

1. Qureshi, N., Mascagni, P., Ribí, E., et al. *J. Biol. Chem.* **260**(9), 5271-5278 (1985).
2. Lambert, S.L., Yang, C.F., Liu, Z., et al. *PLoS One* **7**(12), e51618 (2012).
3. Arias, M.A., Van Roey, G.A., Tregoning, J.S., et al. *PLoS One* **7**(7), e41144 (2012).
4. Baldwin, S.L., Bertholet, S., Reese, V.A., et al. *J. Immunol.* **188**(5), 2189-2197 (2012).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 05/06/2024

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM