

PRODUCT INFORMATION



Kdo₂-Lipid A (sodium salt)

Item No. 10860

Formal Name: 1-(dihydrogen phosphate) 3-[(3R)-3-hydroxytetradecanoate] O-3-deoxy- α -D-manno-2-octulopyranosonyl-(2 \rightarrow 4)-O-3-deoxy- α -D-manno-2-octulopyranosonyl-(2 \rightarrow 6)-O-2-deoxy-2-[[[(3R)-1-oxo-3-[(1-oxododecyl)oxy]tetradecyl]amino]-3-O-[(3R)-1-oxo-3-[(1-oxotetradecyl)oxy]tetradecyl]-4-O-phosphono- β -D-glucopyranosyl-(1 \rightarrow 6)-2-deoxy-2-[[[(3R)-3-hydroxy-1-oxotetradecyl]amino]- α -D-glucopyranose, tetrasodium salt

Synonym: KLA

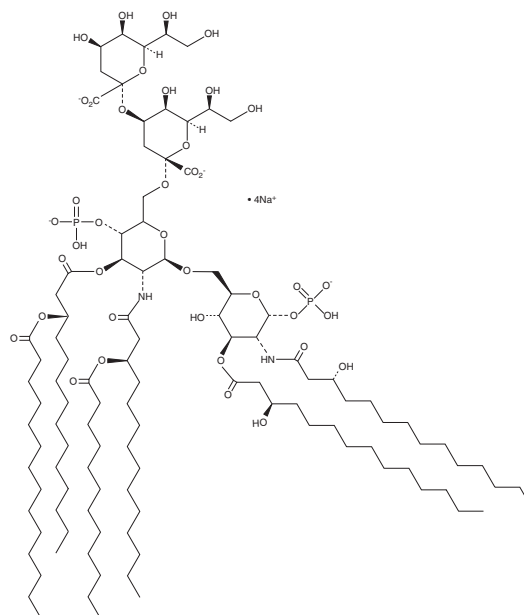
MF: C₁₁₀H₁₉₈N₂O₃₉P₂ • 4Na

FW: 2,326.7

Supplied as: A solution in pyrogen-free double distilled water

Storage: -20°C

Stability: \geq 2 years



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

Description

Kdo₂-Lipid A is the active component of LPS.¹ It selectively induces Il-6 expression in wild-type RAW 264.7 macrophages, but not *Tlr4*^{-/-} RAW 264.7 macrophages, when used at a concentration of 1 μ g/ml. Kdo₂-Lipid A (100 ng/ml) increases the levels of prostaglandin D₂ (PGD₂; Item No. 12010), PGE₂ (Item No. 14010), and Tnf- α in RAW 264.7 macrophages to a similar extent as LPS. It has been used in lipidomic studies to assess changes in lipid expression and metabolism induced by immune activation in macrophages.^{2,3}

References

1. Raetz, C.R.H., Garrett, T.A., Reynolds, C.M., *et al.* Kdo2-lipid A of Escherichia coli, a defined endotoxin that activates macrophages via TLR-4. *J. Lipid Res.* **47**, 1097-1111 (2006).
2. Harkewicz, R., Fahy, E., Andreyev, A., *et al.* Arachidonate-derived dihomoprostaglandin production observed in endotoxin-stimulated macrophage-like cells. *J. Biol. Chem.* **282**(5), 2899-2910 (2007).
3. Dennis, E.A., Deems, R.A., Harkewicz, R., *et al.* A mouse macrophage lipidome. *J. Biol. Chem.* **285**(51), 39976-85 (2010).

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.

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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