AdipoGen™
Advanced Biochemicals for Discovery™

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BULK AVAILABLE

Kdo2-Lipid A (ready-to-use)

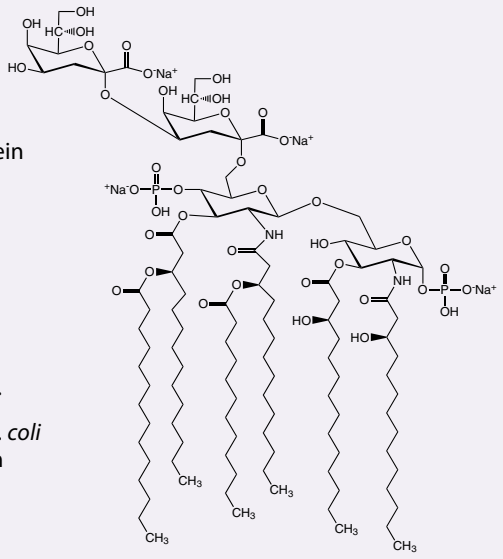
TLR4 Agonist

AG-CU1-0003-M001 **1 mg**

AG-CU1-0001-BULK ***Please inquire for BULK Prices!***

- **Highly active** (working concentration <10ng/ml)
- **Ultra-pure**
- **Ready-to-use:** - No risk of contamination
  - No SOP for sonication required
  - No potential health hazard
- **Stable formulation – Highly homogenous**
- **Systems biology certified**
- **Large batch sizes (g) of standard stock concentration are available for reproducible and comparable results**

FORMULA	$C_{110}H_{198}N_2Na_4O_{39}P_2$
MW	2326.7
RTECS	Unlisted
PURITY	Absence of detectable protein or DNA contaminants with agonistic TLR activity.
APPEARANCE	Clear, colorless solution.
FORMULATION	Liquid. Sterile, *ready-to-use* solution in pyrogen-free double distilled water.
CONCENTRATION	0.5mg/ml. Vial contains 2ml.
SOURCE/HOST	Isolated and purified from *E. coli* K12 heptose-deficient strain WBB06 (Re mutant).



OTHER PRODUCT DATA

Strong activator (<10ng/ml) of toll-like receptor 4 (TLR 4). Does not activate TLR2 or other TLRs as determined with splenocytes and macrophages from TLR4 deficient mice. No further re-extraction required.

AdipoGen™
Connecting Immunology to Metabolism™

Product Description

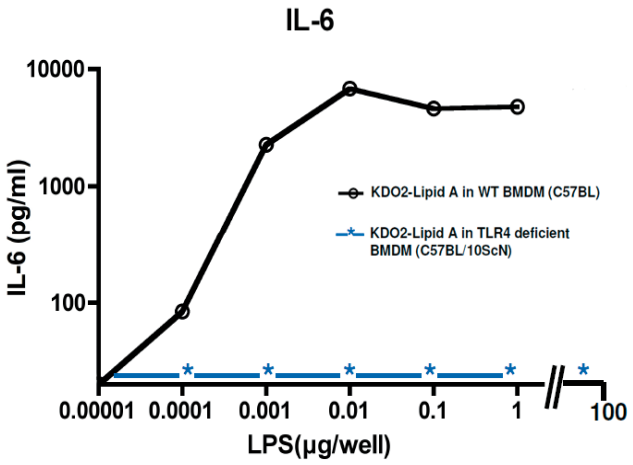
- Defined substructure of the Re mutant of lipopolysaccharide (LPS) [1].
- Endotoxin activity equal to Re LPS [1].
- Strong activator (< 10ng/ml) of macrophages via toll-like receptor 4 (TLR4) [1,2,3,4].
- Does not activate TLR2 [5] or other TLRs as determined with splenocytes and macrophages from TLR4 deficient mice by IL-6 ELISA [1,4].
- Facilitates the structural analysis of its complexes with signaling receptors, such as TLR4/MD2 [1,2].
- Used in an animal atherosclerosis model [6].

PRODUCT SPECIFIC REFERENCES

[1] Kdo2-Lipid A of Escherichia coli, a defined endotoxin that activates macrophages via TLR-4: C.R. Raetz, et al.; J. Lipid Res. **47,** 1097 (2006)
[2] Aggregation behavior of an ultra-pure lipopolysaccharide that stimulates TLR-4 receptors: H. Sasaki & S.H. White; Biophys. J. **95,** 986 (2008)
[3] TLR-4 mediated group IVA phospholipase A(2) activation is phosphatidic acid phosphohydrolase 1 and protein kinase C dependent: A. Grkovich, et al.; BBA **1791,** 975 (2009)
[4] Subcellular organelle lipidomics in TLR 4-activated macrophages: A.Y. Andreyev, et al.; J. Lipid Res. (2010) **(Epub ahead of print)**
[5] Spinal glial TLR4-mediated nociception and production of prostaglandin E and TNF: O. Saito, et al.; Br. J. Pharmacol. **160,** 1754 (2010)
[6] Low doses of lipopolysaccharide and minimally oxidized low-density lipoprotein cooperatively activate macrophages via nuclear factor kappab and activator protein-1- possible mechanism for acceleration of atherosclerosis by subclinical endotoxemia: P. Wiesner, et al.; Circ. Res. **107,** 56 (2010)

Biological Activity Data

TLR4-dependent IL-6 production of mouse bone marrow-derived macrophages (BMDM) induced by highly active and pure Kdo2-Lipid A (Prod. No. AG-CU1-0001). No remaining agonistic activity (IL-6) in TLR4 KO detectable at up to 50µg/ml.



MSDS available upon request at info@adipogen.com.

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