

PRODUCT INFORMATION



Lipid A Monophosphoryl from *Salmonella minnesota* R595 Item No. 25848

Overview and Properties

Contents:	Each vial contains 1 mg of Lipid A, monophosphoryl (MPLA), from <i>Salmonella minnesota</i> R595 (Re) lipopolysaccharide.
Storage:	4°C (as supplied)
Stability:	≥4 years
Special conditions:	This product is pyrogenic. Avoid accidental autoinoculation by exercising extreme care when handling in conjunction with any injection device.

Laboratory Procedures

This product is provided as a lyophilized powder, sealed under vacuum. Lipid A is insoluble in water. It may be suspended in DMSO or 0.5% triethylamine. A usable suspension may also be achieved in water by heating to 50°C combined with intermittent vortexing and/or sonication. Store at 4°C prior to and following reconstitution.

Description

Lipid A monophosphoryl from *Salmonella minnesota* R595 is a non-toxic fragment of lipopolysaccharide (LPS) extracted from wild-type *S. minnesota* R595 and a TRIF biased toll-like receptor 4 (TLR4) agonist.¹ Lipid A monophosphoryl induces T cell clonal expansion and TRIF-dependent production of G-CSF, IL-10, IP-10, and MCP-1 but has no effect on MyD88-dependent production of the inflammatory cytokines IL-1β, IL-6, MIP-1α, and IFN-γ in mice, indicating decreased potential for inflammatory toxicity compared to LPS and use as a non-toxic vaccine adjuvant.

Reference

1. Mata-Haro, V., Cekic, C., Martin, M., et al. The vaccine adjuvant monophosphoryl lipid A as a TRIF-biased agonist of TLR4. *Science* **316**(5831), 1628-1632 (2007).

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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