

PRODUCT INFORMATION



LPS from *Escherichia coli* O55:B5

Item No. 19660

Overview and Properties

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| Contents: | Each vial contains LPS isolated from <i>Escherichia coli</i> O55:B5, which was in water when lyophilized |
| Storage: | 2-8°C (as supplied) |
| Stability: | ≥2 years |
| Special conditions: | This product is pyrogenic. Avoid accidental autoinoculation by exercising extreme care when handling in conjunction with any injection device. |

Laboratory Procedures

LPS is dispersible in aqueous solvents at concentrations of 1 mg/ml. To achieve suspension in water, heating to about 50°C with intermittent vortexing or sonication is recommended. Allow ample time for dispersion to occur. The use of 0.5 % triethylamine aids in dispersion. Triethylamine is very basic and may be neutralized with Tris HCl to avoid hydrolysis of the LPS fatty acid chains.

Description

LPS from *Escherichia coli* O55:B5 is a form of lipopolysaccharide (LPS) extracted from wild-type S-form *E. coli* serotype O55:B5. It is commonly used to activate toll-like receptor 4 (TLR4) on leukocytes, eliciting inflammatory signaling in isolated cells and *in vivo*.¹⁻⁴ This form of LPS includes three regions, the O-antigenic polysaccharide chain, the core oligosaccharide, and lipid A.

References

1. Brauer, R.B., Gegenfurtner, C., Neumann, B., *et al.* Endotoxin-induced lung inflammation is independent of the complement membrane attack complex. *Infect. Immun.* **68(3)**, 1626-1632 (2000).
2. Jungi, T.W., Sager, H., Adler, H., *et al.* Serum factors, cell membrane CD14, and β 2 integrins are not required for activation of bovine macrophages by lipopolysaccharide. *Infect. Immun.* **65(9)**, 3577-3584 (1997).
3. Li, C.C., Munitic, I., Mittelstadt, P.R., *et al.* Suppression of dendritic cell-derived IL-12 by endogenous glucocorticoids is protective in LPS-induced sepsis. *PLoS Biol.* **13(10)**, (2015).
4. Migale, R., Herbert, B.R., Lee, Y.S., *et al.* Specific lipopolysaccharide serotypes induce differential maternal and neonatal inflammatory responses in a murine model of preterm labor. *Am. J. Pathol.* **185(9)**, 2390-2401 (2015).

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