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Product #421
 Lot #4219A1
 Release Date: May 2019

CERTIFICATE OF ANALYSIS
LIPOPOLYSACCHARIDE, ULTRAPURE
 from *Escherichia coli* O111:B4
 Lot #4219A1

Contents

Each vial contains 1 mg of highly purified lipopolysaccharide (LPS) lyophilized in water. This LPS is isolated from *Escherichia coli* type O111:B4.

Reconstitution/Storage

This product is provided as an aseptically packaged lyophilized powder, sealed under vacuum. It is recommended that this material be stored at 2-8°C prior to reconstitution and following reconstitution.

Analysis

Endotoxin activity by a kinetic chromogenic LAL assay ¹	8.2 EU/ng
2-Keto-3-deoxyoctonate (KDO) ²	2.6%
Nucleic acid ³	0.6%
Protein by Colloidal Gold Transfer Blot ^{4,5}	<2.5 ng/ug

Handling

Good laboratory technique should be employed in the safe handling of any lipopolysaccharide or lipid A product. Wear appropriate laboratory attire including lab coat, gloves and safety glasses. Nitrile gloves are recommended when handling lyophilized material.

This product is pyrogenic. Avoid accidental autoinoculation by exercising extreme care when handling in conjunction with any injection device.

The product is intended for research purposes by qualified personnel. It is not intended for use in humans or as a diagnostic agent. List Biological Laboratories, Inc. is not liable for any damages resulting from the misuse or handling of this product.

FOR RESEARCH PURPOSES ONLY. NOT FOR HUMAN USE.

References

1. Endosafe Portable Test System User's Guide, Charles River Laboratories, International, Inc., document #PIPTS 101-10.
2. Cynkin, M.A. and Ashwell, G. (1960) *Nature* **186**, 155-156.
3. Determined by absorption at 260 nm.
4. Rohringer, R., and Holden, D.W. (1985) *Anal. Biochem.* **144**, 118-127.
5. Danscher, G. (1981) *Histochemistry* **71**, 81-88.

QA/QC: KPD Date: 01/22/2021

