

## Monoclonal Antibody to Lipoteichoic Acid (LTA) - Low Endotoxin

**Catalog No.:** AM32119LE-N

**Quantity:** 0.2 mg

**Concentration:** > 0.2 mg/ml

**Background:** **Lipoteichoic Acid** is the major proinflammatory structure present within the cell wall layer of most gram-positive bacteria. It plays an important role in the initiation and progression of bacterial infection, inflammation, and septic shock. It induces several cytokines in vivo, and Lipoteichoic Acid and peptidoglycan (PepG) synergize to cause the induction of nitric oxide formation which can lead to multiple organ failure. Since Lipoteichoic Acid is also found in the cell walls of non-pathogenic gram-positive bacteria, it has been suggested that its structure and its ability to synergize with PepG determine the ability of a particular bacterium to cause septic shock.

**Host / Isotype:** Mouse / IgG3

**Recommended Isotype Controls:** AM08210LE-N

**Clone:** 55

**Format:** **State:** Culture Medium with a Low Endotoxin Level  
**Preservatives:** 0.02% Sodium Azide

**Applications:** **Western blotting:** Use 1/50 as starting working dilution.  
**Immunoassays**  
**Immunohistochemistry on Frozen Sections:** Use 1/50 as starting working dilution.  
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Specificity:** This Monoclonal antibody clone 55 reacts with Lipoteichoic Acid (LTA).

**Storage:** Store the antibody undiluted at 2-8°C.  
Shelf life: one year from despatch.

**General Readings:**

1. van Langevelde P, van Dissel JT, Ravensbergen E, Appelmelk BJ, Schrijver IA, Groeneveld PH. Antibiotic-induced release of lipoteichoic acid and peptidoglycan from *Staphylococcus aureus*: quantitative measurements and biological reactivities. *Antimicrob Agents Chemother.* 1998 Dec;42(12):3073-8. PubMed PMID: 9835493.
2. van Langevelde P, Ravensbergen E, Grashoff P, Beekhuizen H, Groeneveld PH, van Dissel JT. Antibiotic-induced cell wall fragments of *Staphylococcus aureus* increase endothelial chemokine secretion and adhesiveness for granulocytes. *Antimicrob Agents Chemother.* 1999 Dec;43(12):2984-9. PubMed PMID: 10582893.
3. Henneke P, Morath S, Uematsu S, Weichert S, Pfitzenmaier M, Takeuchi O, et al. Role of lipoteichoic acid in the phagocyte response to group B streptococcus. *J Immunol.* 2005 May

15;174(10):6449-55. PubMed PMID: 15879147.

4. Triantafilou M, Manukyan M, Mackie A, Morath S, Hartung T, Heine H, et al. Lipoteichoic acid and toll-like receptor 2 internalization and targeting to the Golgi are lipid raft-dependent. J Biol Chem. 2004 Sep 24;279(39):40882-9. Epub 2004 Jul 9. PubMed PMID: 15247273.