



## Lipid A (26-5): sc-57902

### BACKGROUND

Lipid A is part of a Gram-negative bacterial endotoxin located at one end of the lipopolysaccharide (LPS) molecule. Lipid A is made up of two glucosamine units with attached acyl chains, and it usually contains one phosphate group on each carbohydrate. Lipid A functions to anchor the LPS to the outer membrane of a Gram-negative bacteria. The toxicity of Gram-negative bacteria is due to Lipid A since this is what the human immune system recognizes, though this recognition is also critical for the onset of immune responses to Gram-negative infection and for the subsequent successful fight against the infection. Lipid A may play a role in activating cells via Toll-like receptor 4 (TLR4), MD-2, and CD14 on the cell surface. When present in the body at high concentrations during a Gram-negative bacterial infection, Lipid A can cause shock and death because it is such a potent immune system activator.

### REFERENCES

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### SOURCE

Lipid A (26-5) is a mouse monoclonal antibody raised against synthetic Lipid A.

### PRODUCT

Each vial contains 500  $\mu$ l culture supernatant containing IgG<sub>2b</sub> with PBS, < 0.1% sodium azide and 1% stabilizer protein.

### APPLICATIONS

Lipid A (26-5) is recommended for detection of Lipid A by solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:100-1:5000).

### SELECT PRODUCT CITATIONS

1. Anstadt, E.J., Fujiwara, M., Wasko, N., Nichols, F. and Clark, R.B. 2016. TLR tolerance as a treatment for central nervous system autoimmunity. *J. Immunol.* 197: 2110-2118.
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3. Baggio, C.H., Shang, J., Gordon, M.H., Stephens, M., von der Weid, P.Y., Nascimento, A.M., Román, Y., Cipriani, T.R. and MacNaughton, W.K. 2021. The dietary fibre rhamnogalacturonan improves intestinal epithelial barrier function in a microbiota-independent manner. *Br. J. Pharmacol.* 179: 337-352.

### STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.