

LPS-induced Septic Shock

Sepsis is primarily defined as an intricate, systemic immune response to infection that can have serious consequences, including multiple organ failure and death. The development and progression of sepsis is multi-factorial, and affects the cardiovascular, immunological and endocrine systems of the body. The complexity of sepsis makes the clinical study of sepsis and sepsis therapeutics difficult.

Animal models have been developed in an effort to create reproducible systems for studying sepsis pathogenesis and preliminary testing of potential therapeutic agents. At MLM Medical Labs, the bacterial lipopolysaccharide (LPS) component is used to induce sepsis, setting off an immune response which can be assessed via inflammatory cytokine excretion by activated immune cells.

Experimental Overview

Following induction with LPS, plasma cytokine levels are assessed at 5.5 hr post LPS induction by multiplex providing assessment of up to 30 cytokines at once.

Animal Strain:	Balb/c mice, F
Study Duration:	1 Day
Positive Controls:	Dexamethasone
Standard Assessments:	Cytokine plasma levels
Add-on Assessments:	Specific biomarker analysis Histology

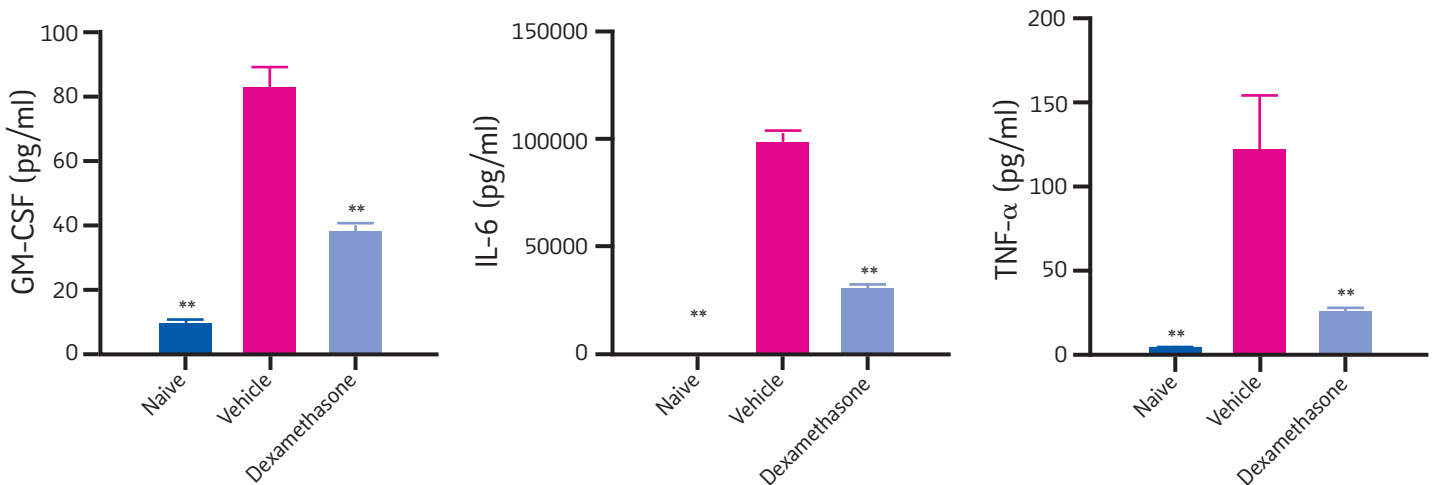


Figure 1: Cytokine level in the plasma at 5.5 hours post LPS administration. Treatments were dosed 30 minutes prior to LPS administration. ** represents $p < 0.01$ in comparison to vehicle.

Additional markers available upon request

Our Clients Say ...

"The performance of your team far exceeded our expectations. The study was performed well and we appreciate all your input into the study design. Your responsiveness and feedback during the study and following in the data interpretation was extremely helpful to guide our next steps. That's something we don't find with every CRO."

S.G., Toxicologist, Biotech Company

"Of all the CROs that I have used over the years... MLM Medical Labs been one of the very best in terms of scientific knowledge, data quality, timelines, flexibility and personal contacts."

O.B., Director of Therapeutics, Pharmaceutical Company

"Throughout our relationship, you have been attentive to our needs and have completed exploratory pilot studies and three drug studies with professionalism and an understanding of tight biotech timelines that are unmatched by other CROs."

D.Z., Director of Therapeutics, Biotech Company

About MLM Medical Labs

MLM Medical Labs is a leading specialty and central laboratory with comprehensive research services and analytical capabilities in Europe and the United States. Offering standard and fully customizable biological specimen testing and auxiliary logistics services across a wide spectrum of therapeutic areas, we add value at every stage of the product development process, from nonclinical and preclinical through phase IV clinical trials that serve to augment and accelerate research programs to their next stages and milestones. Each disease area is supplemented extensively by different models and batteries of *in vitro* and *ex vivo* analyses, offering answers to your therapeutics' effect on different parameters. With our strong reputation for scientific expertise, passionate approach to customer care, and adherence to quality data, we empower clients ranging from emerging biotech to Top Ten Global Pharma companies to reach confident clinical decisions that ultimately serve to improve patient lives.

If you'd like to discuss a particular study or speak with a scientist, please reach out to us!

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