

LPS Acute Lung Inflammation Screen

Inflammation in pulmonary tissue is a complex interplay of multiple cellular and physiological responses to external stimuli and is commonly attributed to bacterial infection. Respiratory infection can be mimicked via intranasal administration of lipopolysaccharide (LPS), providing a simple, rapid way to study acute host pulmonary inflammatory response to bacterial exposure in the lungs. After only 4 hrs post-exposure, leukocytes such as neutrophils migrate to the lung airways and subsequent increases in pro-inflammatory cytokines can be detected. This model is ideal for a fast screening of therapeutics via assessment and characterization the cellular profile of recruited leukocytes to the lung airways as well as the levels of pro-inflammatory cytokines.

Experimental Overview

Animal Strain:	Balb/c mice
Study Duration:	4 hours
Control:	Dexamethasone
Treatment:	Intranasal LPS
Standard Assessments:	Cytokine profile in BALF/lung
Additional Assessments:	FACS analysis of cellular populations (i.e. macrophage, neutrophils, etc) in BALF/lung WBC Total Protein Biomarker Assessments Histology/IHC

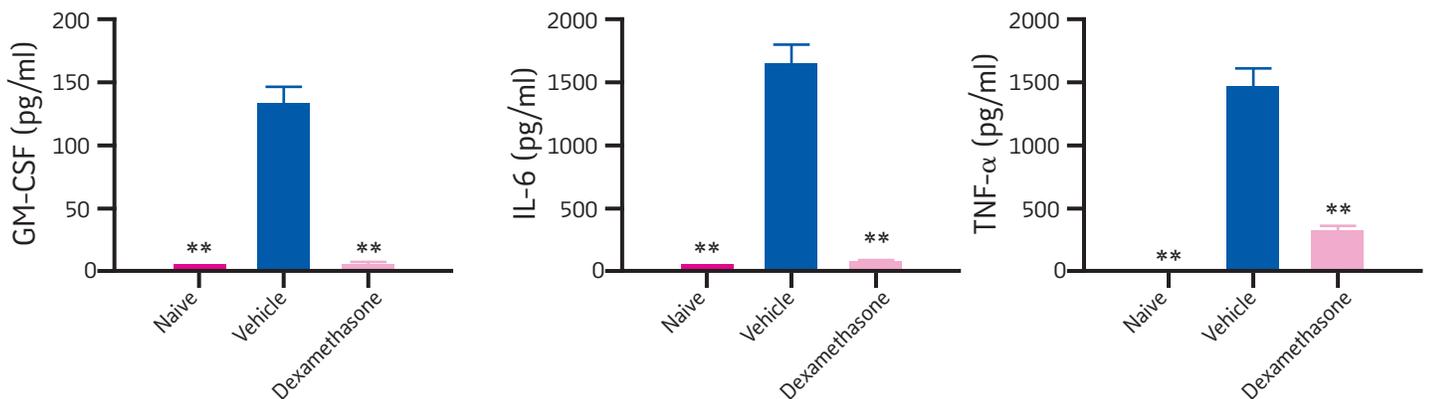


Figure 1. Cytokine Profiles of BALF treated mice. Animals were treated 30 min prior to LPS administration. BALF samples were collected. 4 hours post LPS administration. ** represents $p < 0.01$ (in comparison to vehicle).

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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