

Rat Collagen-induced Arthritis

The collagen induced arthritis (CIA) model has become the 'gold standard' in preclinical rheumatology research over the past three decades. The reasons for this are the reproducibility of disease and the similarity in proposed mechanism of disease induction compared to the human condition, such as humoral and cellular responses to type II collagen, genetic predisposition to MHC class II, cartilage and bone erosion and metalloproteinase involvement. The incidence of disease in the CIA study is often affected by the induction reagents used. MLM Medical Labs has more than 10 years experience with the CIA model in both mouse and rats and has optimized the induction system for optimal model performance.

Experimental Overview

Animal Strain: Lewis rats
 Study Duration: 28-35 days
 Numbers/group: 10-12 is recommended
 Positive Controls: Dexamethasone, Enbrel
 Treatment: Route & Regime is custom

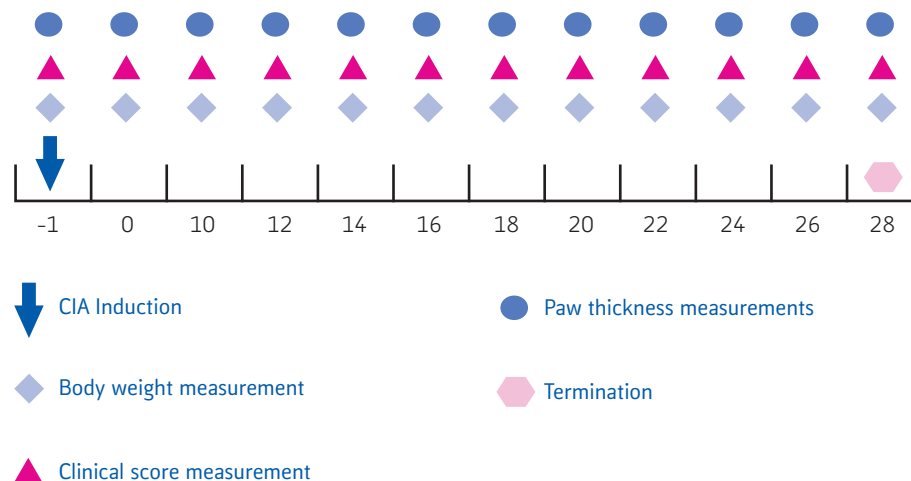
Standard Assessments

Body weight
 Clinical signs
 Arthritis score
 Paw swelling

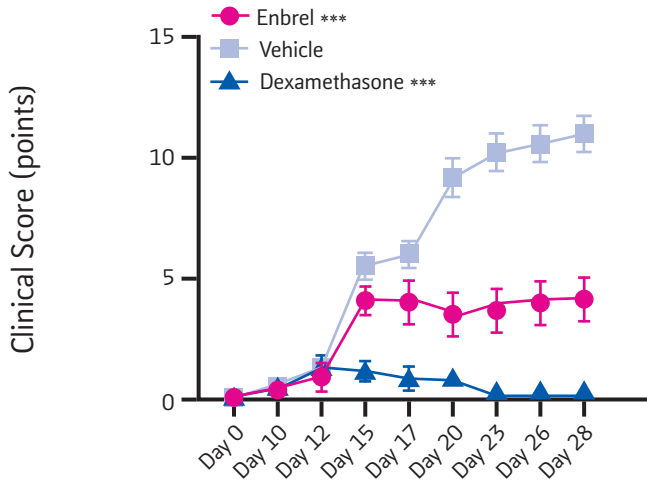
Add-on Assessments

Histology/IHC
 Biomarkers

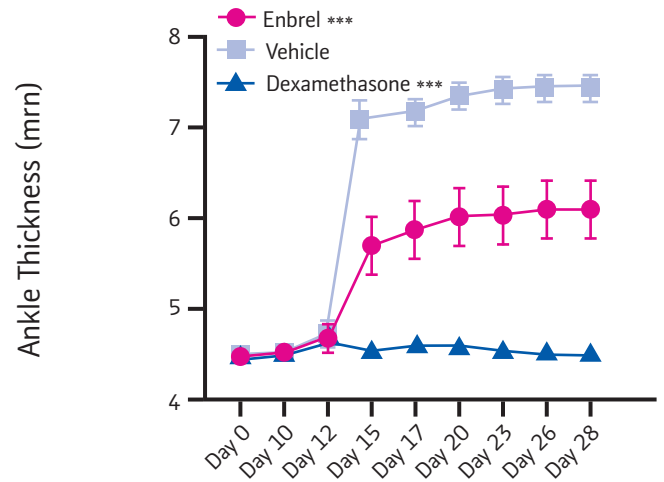
Experimental Schematic



Clinical Score



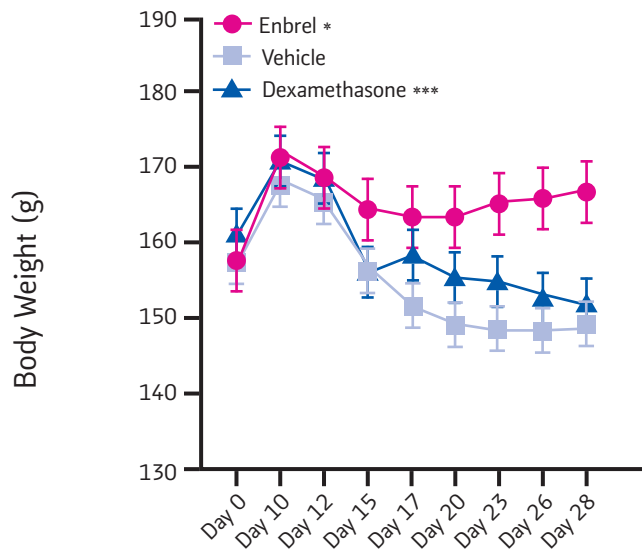
Ankle Thickness



Arthritis clinical score in the rat model of CIA arthritis.

Ankle thickness in the rat model of CIA arthritis.

Body Weight



Body weight measured multiple days in the rat model.

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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