

Rat TNBS-induced Inflammatory Bowel Disease

TNBS-induced intestinal inflammation is commonly used in rats as a model for IBD, particularly in reference to Crohns disease (CD). In this 7 day TNBS model, disease is induced through intrarectal administration of TNBS to produce clinically amenable indicators to that of CD such as diarrhea, rectal bleeding, body weight loss, more diffuse intestinal inflammation, occasional adhesions, fibrosis and vascularized ulceration. The TNBS model of IBD is pathologically driven by Th1/Th17 dependant mechanisms.

Experimental Overview

Disease is induced through intrarectal administration of TNBS to produce clinical signs of IBD. Positive control Anti-P40 is administered via IP injection on day 0 and test items are administered according to the client's criteria. Body weight and clinical score are measured per the schematic below.

Animal Strain: SD Rats

Study Duration: 7 Days

Positive Controls: Anti-P40

Standard Colitis Clinical Score

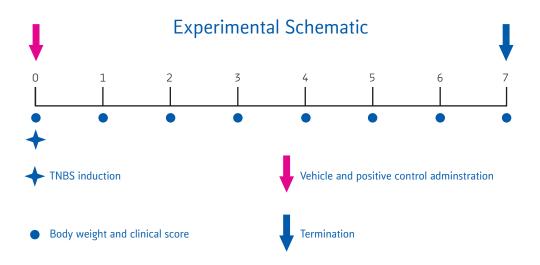
Assessments: Gross Pathology

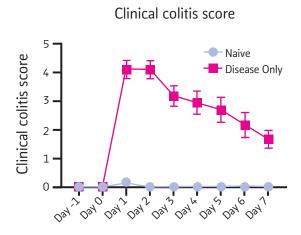
Body Weight

Add-on Biomarker Analysis

Assessments: Colon Explant

Histology





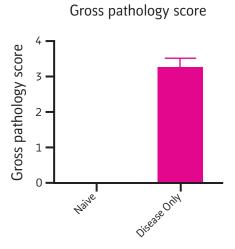


Figure 1: Clinical Colitis Score in TNBS treated rats

Figure 2: Gross Pathology Score of colon from TNBS treated rats

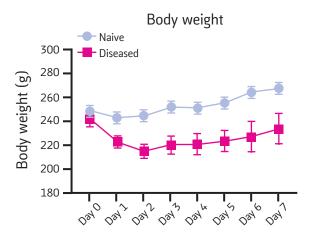


Figure 3: Body Weight of TNBS treated rats

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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, time-lines, 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

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

info@mlm-labs.com

- +1 (651) 641 1770
- +49 (2161) 4642 108