

A thymol-based blend of botanicals protects intestinal cells during a chronic inflammatory challenge *in vitro*

INTRODUCTION

Botanicals represent a wide class of natural bioactive compounds that contain **active principles** with numerous biological functions. Amongst them, the **anti-inflammatory action** is of pivotal importance to support the **intestinal health** of pigs during stressful phases.

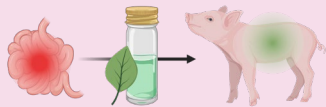
AIM OF THE STUDY

The aim of the study was to investigate the ability of a **thymol-based blend of botanicals (BOT)** to protect intestinal Caco-2 cells from the damages induced by a **chronic inflammatory challenge *in vitro***.

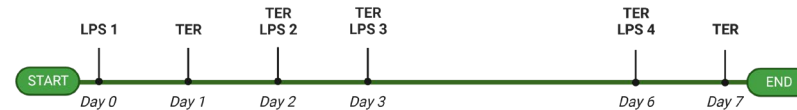


DISCUSSION AND CONCLUSION

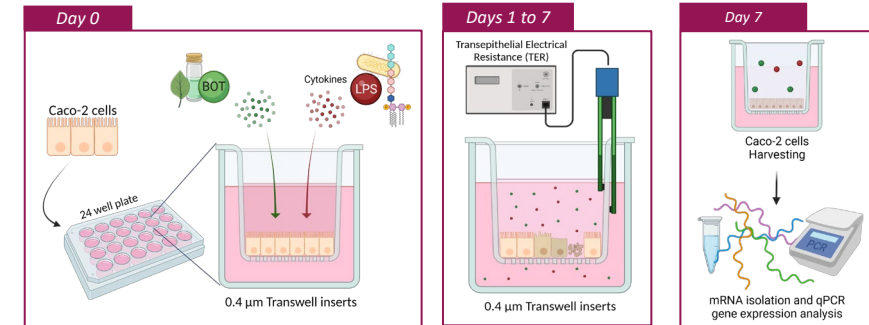
- BOT was able to **maintain epithelial integrity *in vitro*** by helping enterocytes to face a **chronic inflammatory stress**.
- This thymol-based blend of botanicals has the potential to be **further investigated *in vivo*** as a dietary supplement to support intestinal health of animals during stressful phases.



MATERIALS AND METHODS



TER data (n=6) analyzed with Two-Way ANOVA; in graph, superscript letters indicate significant differences within each timepoint. Gene expression data (n=6) analyzed with One-Way ANOVA and Tukey post-hoc test; in graphs, superscript letters indicate significant differences; pairwise comparisons performed with T test with p values above horizontal bars. All data are displayed as means ± SEM. Differences considered significant at $p < 0.05$.



RESULTS

