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Engineered *Bacillus subtilis* alleviates intestinal oxidative injury through Nrf2-Keap1 pathway in enterotoxigenic *Escherichia coli* (ETEC) K88-infected piglet

Key words: Engineered probiotics; intestine; oxidative injury; weaned piglets; Nrf2-Keap1 pathway

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Research Summary

This article mainly focused on Engineered Bacillus subtilis WB800-KR32 alleviate intestinal oxidative injury via Nrf2-Keap1 pathway.

The study design is below.

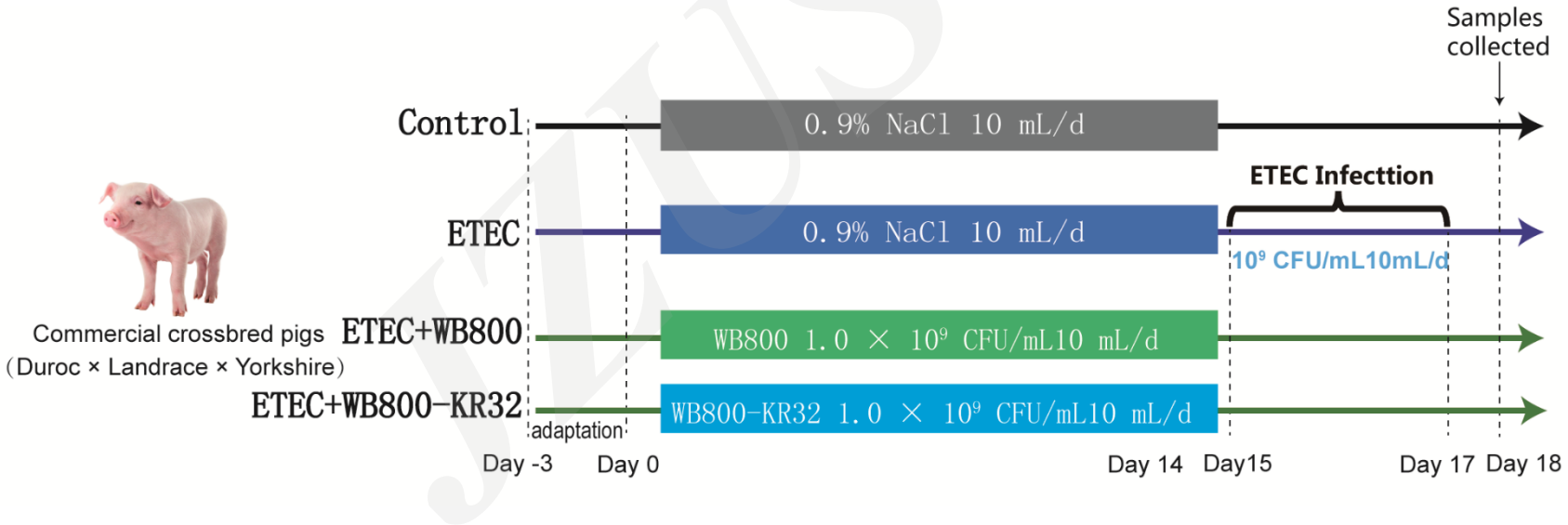


Figure 1. Schematic of the experimental design of the animal treatments.

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Figure. 2 Effect of WB800-KR32 on intestinal antioxidant-related genes.

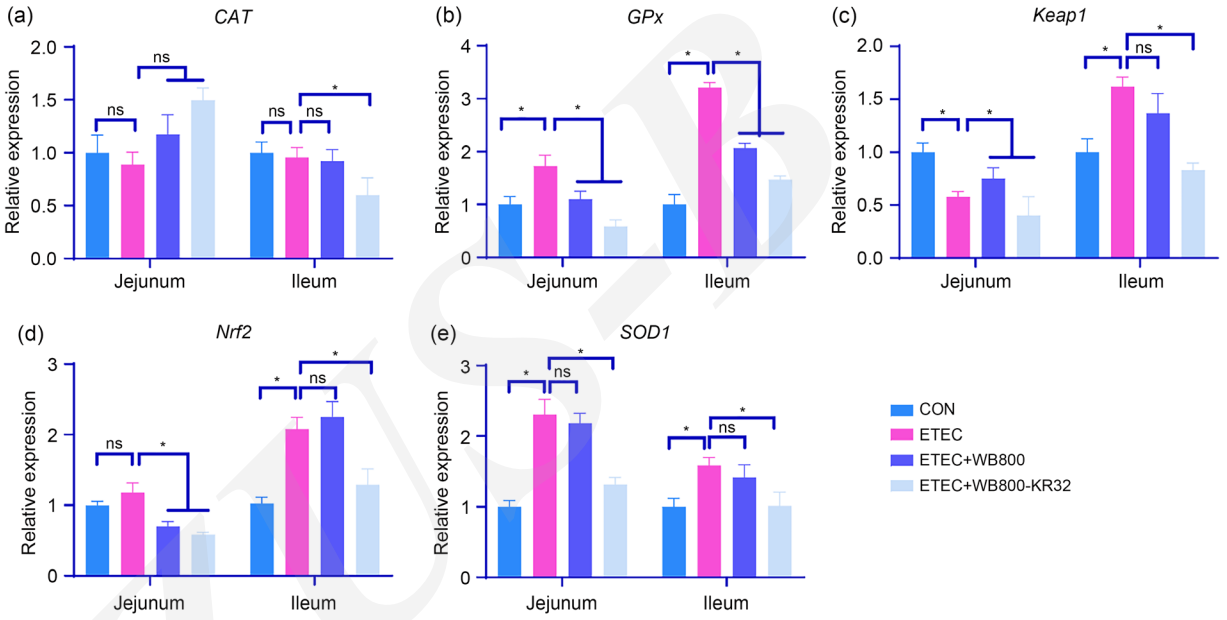
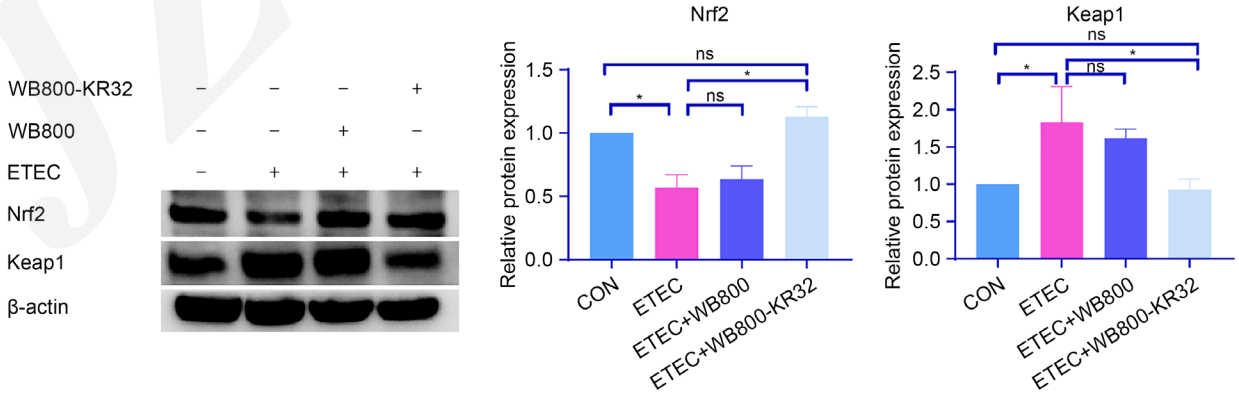
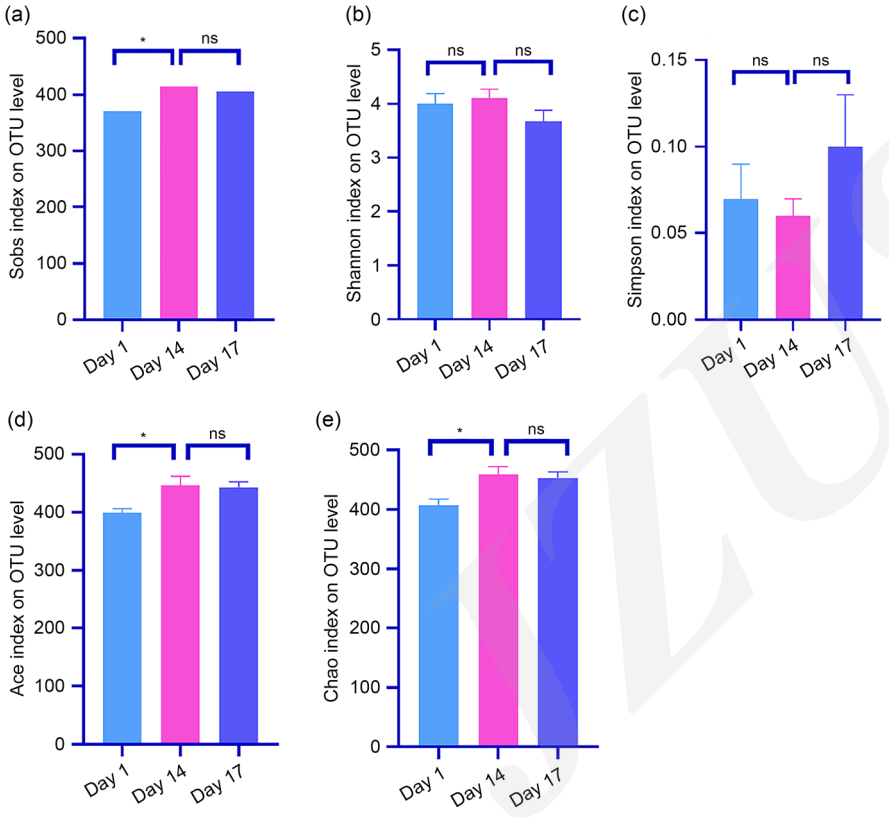


Figure. 3 Effect of WB800-KR32 on Nrf2-Keap1 protein expression.



Innovation points



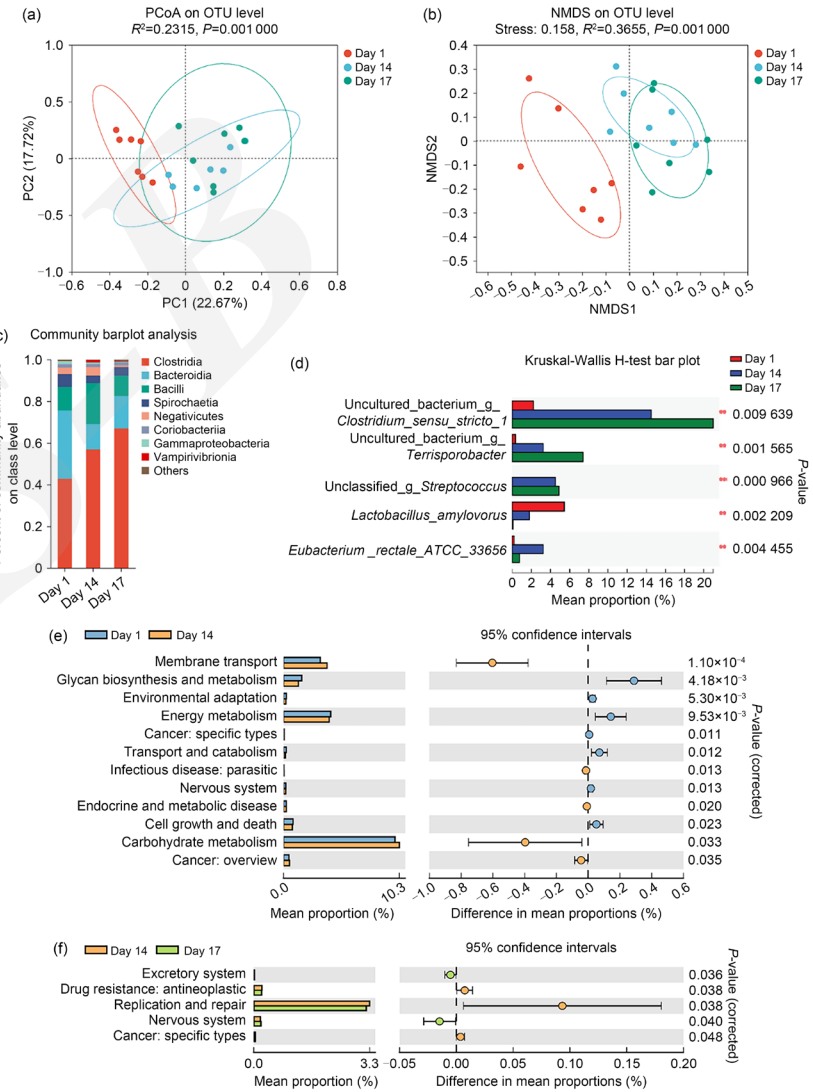


Figure. 4 Effects of treatment with WB800-KR32 and ETEC K88 on fecal microbial alpha diversity, composition and function in the ETEC+WB800-KR32 group