

# Improvement of Leaky Gut Symptom

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The fermented vegetable extract OM-X (OM-X extract) is effective for the recovery of tight junctions and epithelial cells in the intestine of the infected mice with the pathogen.

## Objective

We examined the contribution of the OM-X extract for the recovery of epithelial cells in the intestine of mouse models with a leaky gut symptom induced by the infection with mouse pathogen.

## Methods

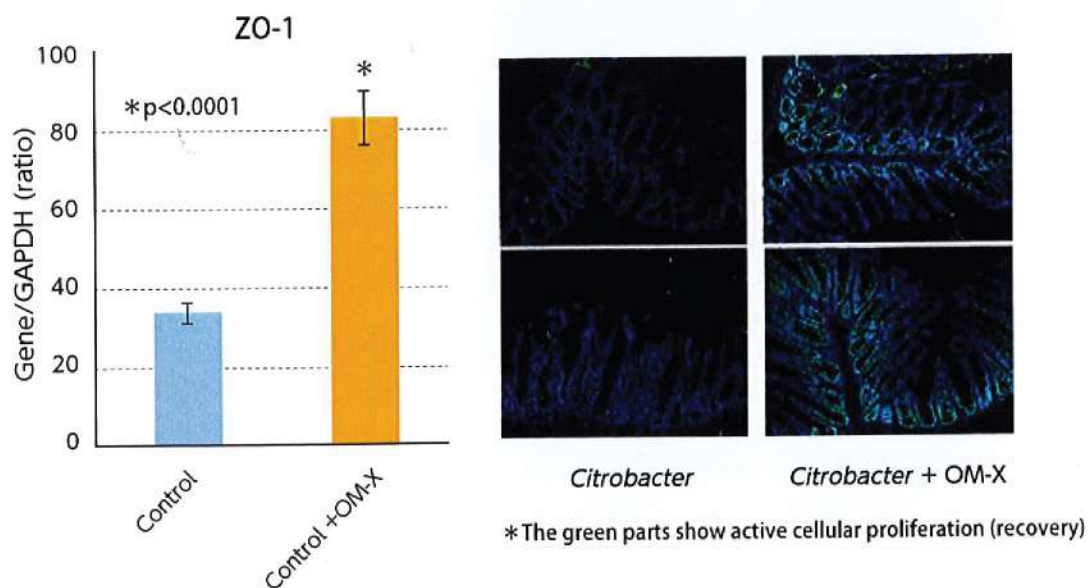
We destroyed the epithelial cells in the mice intestines and orally administered *Citrobacter rodentium* in order to prepare the mouse models with a leaky gut symptom. Then, we confirmed the conditions of the epithelial cells through the examinations on the gene expression that is involved in the tight junctions and the cellular proliferative potential by pigmentation the epithelial cells.

## Results

The group that was given the OM-X extract showed a significant increment of the gene expression of ZO-1 and ZO-2 proteins associated with tight junctions where they join two cells together in the intestines.

At the time of infection with the pathogen, the control group showed little pigmentation on the cells indicating the cellular proliferative potential, but the group that was given the OM-X extract showed a lot of pigmentation on the cells. These results suggested that the destroyed epithelial cells in the intestines recovered over the active cellular proliferation.

### Recovery effect on disrupted epithelial cells in the intestine by the administration of OM-X



The fermented extract OM-X facilitated the active cellular proliferation and the recovery from cellular destruction.