

EFFECTS OF *SACCHAROMYCES CEREVISIAE* STRAIN 905 IN THE BARRIER  
FUNCTION AND SIGNAL TRANSDUCTION PATHWAY INDUCED IN  
*SALMONELLA ENTERICA* SEROVAR TYPHIMURIUM-INFECTED T84 CELLS

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Probiotics are defined as viable microorganisms that exhibit a beneficial effect on the host health when ingested. Previous results in our laboratory showed that a strain of *Saccharomyces cerevisiae* (Sc-905) isolated from “cachaça” production was able to protect mice against *Salmonella* serovar Typhimurium (ST) experimental infections, to reduce the translocation of ST and to stimulate the immune system in mice. In the present work we have shown that Sc-905 maintained the transmonolayer electrical resistance in T84 cells and significantly diminished IL-8 secretion in ST-infected cells. Sc-905 had no effect on ST growth or adhesion, but the levels of ST invasion decreased significantly. The presence of Sc-905 on ST-infected cells diminished and/or inhibited the phosphorylation of ERK1/2, p38 and JNK but did not inhibit NF- $\kappa$ B DNA binding activity, suggesting that the diminution of IL-8 levels was not due to inhibition of the IL-8 transcription factor but probably due to the effects of Sc-905 on the p38 MAPK inhibition, which is the MAP responsible for the stabilization of IL -8 mRNA.

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