Toxicity evaluation for an *Enterococcus faecium* strain TM39 
in vitro and in vivo.

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Previously, we have screened lactic acid bacteria (LAB) strains from infant feces and evaluated their functional properties. We found a strain of *Enterococcus faecium* termed as TM39 which is acid and bile tolerant, able to adhere to the intestinal epithelium and with antagonistic activity against *Helicobacter pylori*. In this study, we demonstrate that strain TM39 is not vancomycin resistant, not invasive to human gastric carcinoma cell line TSGH 9201 and human intestinal epithelial cell line Int-407 in vitro. In addition, we have conducted the in vivo study to evaluate the toxicity of this *E. faecium* strain TM39 in Wistar rats. For such study, cells of strain TM39 were daily oral administrated with dose of 1 x 10(12), 5 x 10(11) and 2 x 10(10) CFU/kg of body weight, respectively, to the rats for 28 consecutive days. There were no adverse effects on the general condition, behavior, growth, feed and water consumption, hematology, clinical chemistry values, organ weights and histopathologic analysis of the rats. Results of this study demonstrate that consumption of strain *E. faecium* TM39, even in large quantities, is not associated with any obvious signs of toxicity in Wistar rats. Copyright 2004 Elsevier Ltd.