Lactobacillus acidophilus

General Information

Lactobacillus acidophilus is a natural resident of the intestinal and vaginal microflora.

As L. acidophilus is microaerophilic, it is able to act at the end of the small intestine and in the colon. The specie Lactobacillus acidophilus and several probiotic effects are reported in the literature: ability to survive in the stomach and to reach the intestine alive exerting antimicrobial activities against pathogens alleviating symptoms of lactose intolerance, helping to prevent and reduce duration of diarrhea possibly reducing the cholesterol level and helping the natural defenses.

Probiotic properties

Resistance to gastric acidity and bile

Microorganisms chosen to be incorporated into probiotic preparations should remain alive until they reach the intestine. In order to do so, they have to pass through the gastrointestinal tract alive. Evaluation of their resistance to stomach acidity and biliary salts is one of the fundamental criteria for probiotic selection, even if tests are performed in vitro.

Stomach pH will vary during the day: the pH is 6 at breakfast, lose to 5 at lunch and over 4 at dinner time.

Lactobacillus acidophilus R-52 is resistant to gastric acidity at a pH over 3.

If taken at mealtime (pH over 4), it will thus be able to survive in high concentrations of bile and should in vivo reach the distal end of the small intestine without damage.

Other properties: Inhibition of intestinal pathogens and Immune modulation

Lactobacillus acidophilus R-52 helps to balance intestinal microflora thanks to its ability to fight against several enteropathogens.

Lactobacillus acidophilus R-52 seems to be able to modulate some immunological parameters of inflammation as well as activate immune cells in in vitro models.

Microencapsulation:

The strain's microencapsulation increases 1000 times its resistance to acidity. It also allows probiotics to better resist to heat shock.