

AMPLIFIED PROBIOTICS

DE111® *Bacillus subtilis*

Forms spores which protect the microbes from harsh conditions until they enter an environment ripe for germination, such as the GI tract

Survives passage through the acidic environment of the stomach, remains viable under a wide temperature range, and doesn't require refrigeration

Crowds out unwanted microbes such as *Candida rugosa* and creates zones of inhibition for unwanted bacteria in the GI tract

Communicates with intestinal cells to maintain the gut barrier's function, preventing food particles (proteins, fats, sugars) from damaging the intestinal lining and causing leaky gut and discomfort

Prebiotic (PreforPro™)

Revolutionary prebiotic that supports the growth of healthy bacteria in the gut through a mechanism that is not fiber or starch-based, working within hours at small doses (15mg) whereas fiber-based prebiotics require high doses (grams), can cause flatulence, and take days or even weeks to work

Targets specific strains of bad bacteria (*E. coli*) and lyses (breaks down) the organism's cell wall releasing nutrients into the environment which can be utilized by probiotics and other favorable bacteria of the GI tract

Clears out space in the gut for good bacteria to flourish

Utilizes a bacteriophage which only interacts with microorganisms and does not harm human cells

***Bacillus coagulans* (LactoSpore®)**

Clinically studied LactoSpore®, *Bacillus coagulans* MTCC 5856, a rod-shaped, gram positive, spore-forming bacteria

Maintains viability during preparation, storage, passage through the stomach, and onwards to the small intestine where beneficial germination can occur

Produces bacteriocin-like substances and generates an acidic micro-environment that is harmful for many pathogenic microbes

Lactobacillus plantarum

Commonly found in the food industry (dairy products, sauerkraut, pickled vegetables)

Produces lactic acid which encourages a more acidic environment, which in turn helps to inhibit less desirable microorganisms

Demonstrates high levels of survival in the human intestine as well as high resistance to bile salts, gastrointestinal enzymes and acids

Bifidobacterium longum

Reduces the frequency of gastrointestinal disorders (diarrhea, nausea, etc.) during antibiotic use

Prevents colonization of intestines by other pathogens which compete for nutrients/attachment sites

Produces acids which lower pH of the intestines and thereby inhibit undesirable microbes

Inhibits specific bacteria that alter nitrates to potentially harmful and carcinogenic nitrites

Produces certain B vitamins

Lactobacillus acidophilus

A well-studied strain that thrives in acidic environments

Produces natural antibiotics such as lactocidin, acidophilin, etc. making it antimicrobial against Staph, Salmonella, *E. coli*, and *Candida*.

Lactobacillus gasseri

Provides health benefits such as bacteriocin production, antimicrobial activity, and immunomodulation of the innate and adaptive systems

Lactobacillus brevis

Produces lactic acid, natural antibacterial substances and is important in the synthesis of vitamins D and K

Lactobacillus rhamnosus

Colonizes, acidifies and protects the small intestine and can quickly establish itself in the large intestine

Creates anaerobic conditions which favor implantation of Bifidobacteria and inhibit growth of Streptococci and Clostridia

Produces lactic acid and favorably affects lactose intolerance

Bifidobacterium animalis lactis

Inhabits the intestines and colons of humans improving GI health through enhancing general immunity, regularity and digestion through secondary enzymatic production

Lactobacillus casei

Produces lactic acid and creates environmental conditions that are unfavorable to other bacteria.

Lactobacillus salivarius

Normalizes gut flora of those with chronic bowel conditions (IBS, etc.)

Shows potential as an effective *H. pylori* inhibitor

Bifidobacterium breve

Produces conjugated linoleic acid (CLA) which helps burn fat, increase lean muscle mass, and may have anticarcinogenic effects.

Lactobacillus paracasei

Produces bacteriocins, which inhibit growth of pathogenic bacteria in the small intestine

Colonizes within the small intestines and mouth

Streptococcus thermophilus

Often found in dairy production (specifically yogurt with *L. bulgaricus*) and enhances digestion of milk sugar through production of the enzyme lactase

Produces lactic acid as the main product of fermentable carbohydrates

Bifidobacterium lactis

Effective in resisting stomach acid

Promotes regularity

Shown to aid in the reduction of inflammatory response in the colon

Protects epithelial cells from damage caused by gliadin exposure