

SPECIFICATION

PRODUCT : Immune+

Code : PFP4030-2

Ingredient : *Lactobacillus plantarum* LP109, *Pediococcus acidilactici* PA320,
Inulin, Tapioca starch.

| Items | Specifications | Methods |
|--|----------------------------------|--|
| Color | Light yellow | Visual |
| Description | Capsule | Visual |
| Odor | Characteristic | Organoleptic |
| Taste | Characteristic | Organoleptic |
| LAB content <i>L. plantarum</i> LP109 <i>P. acidilactici</i> PA320 | 1.8×10^{10} CFU/capsule | CNS 14760 |
| Each capsule net weight | > 400mg | In-house |
| Moisture | <8% | AOAC 934.01 ; CNS5033 |
| Heavy Metal | | |
| Total heavy metals | <10ppm | Colorimetric Detection as Pb |
| Microbiology | | |
| Yeast & Molds | $<1 \times 10^2$ CFU/g | U.S. FDA bacteriological analytical manual and CNS 12925 |
| Coliform | $<1 \times 10^2$ MPN/g | CNS 10951 |
| <i>Escherichia coli</i> | Negative | Merck's Chromocult [®] Coliform Agar method |
| <i>Staphylococcus aureus</i> | Negative | CHROMagar <i>Staphylococcus aureus</i> Count |
| <i>Salmonella</i> spp. | Negative | CHROMagar <i>Salmonella</i> Count |





PRODUCT DATA SHEET

Immune+

Gut microbiota has the largest numbers of microbes and the greatest numbers of species compared to other areas of the human body. In the gut, microbes secrete molecules and excrete metabolites to maintain the well-being of physical function and to influence the development of diseases. Probiotics ingestion can alter the flora balance to reduce the risk of disease. In 2001, the FAO/WHO expert consultation defines probiotics as live microbes that confer a health benefit on the host when administered in adequate amounts.

Description

- ❶ Immune + is the freeze-dried microbial culture blend derived from propagation on a **dairy-free, soy-free and gluten-free medium to ensure tolerability in individuals with food allergies.**
- ❷ It is grown in a medium free from all animal-derived ingredients to make suitability for use in vegetarian products.
- ❸ It is scientifically proven and helpful in allergy.

Composition

Lactobacillus plantarum LP109
Lactobacillus plantarum LP110
Pediococcus acidilactici PA320
Organic tapioca maltodextrin

Potency

100 Billion CFU/g

Identification of microbe

16S rDNA sequencing

Physical characteristics

Appearance White to cream-colored,
free-flowing powder
with characteristic odor

Moisture < 8%

Evaluation of probiotic potential

Survival in simulated GI tract

Adhesion to epithelial cells

Antibiotics susceptibility

| | LP 109 | LP 110 | PA 320 |
|---------------------------|-----------|-----------|-----------|
| Gentamicin | S | R | S |
| Kanamycin | I | R | R |
| Streptomycin | I | R | I |
| Neomycin | S | R | S |
| Tetracycline | I | I | I |
| Erythromycin | S | I | S |
| Clindamycin | S | S | S |
| Chloramphenicol | S | S | I |
| Ampicillin | I | S | I |
| Penicillin | I | S | I |
| Vancomycin | R | I | R |
| Quinupristin-dalfopristin | S | S | S |
| Linezolid | S | S | S |
| Trimethoprim | S | S | R |
| Ciprofloxacin | I | S | I |
| Rifampicin | S | S | S |

S= Susceptible (MIC ≤ 4 µg/ml)
I= Intermediate (MIC = 8-32 µg/ml)
R= Resistant (MIC ≥ 64 µg/ml)

GMO status

Immune+ does not consist of, nor contains, nor is produced from genetically modified organisms (GMOs).

