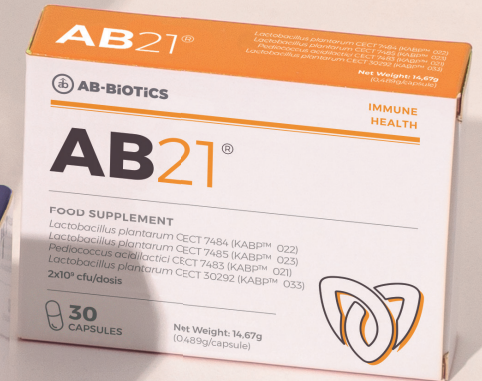


# Product Portfolio Nature-backed probiotic solutions



# Why AB-BIOTICS?

We offer a diversified product range to meet the needs of our partners

Research and development of a vast generation of natural probiotic strains formulated not only to meet therapeutic needs but also to maintain human health.

## Clinically-proven probiotic solutions

1. Development of probiotic blends with relevant medical applications for every stage of life.
2. Complete *in vitro* and *in vivo* investigation process.
3. Clinical validation in humans. Gold standard randomised, double-blind, placebo-controlled clinical trials.

## Unique strains with characterized mechanism of action

1. Collection of hundreds of bacteria strains, creating a private strain bank. Microbiota samples taken from non-industrialised societies (human resident bacteria).
2. Characterisation of the strains' mechanism of action, after selecting those with outstanding phenotypes.
3. **Patent protection.**

## Ready-to-market products

1. Generation and manufacturing of the final product concept (dose, delivery form, formulation and posology), following all quality and regulatory processes. Choose from a range of different formulations and final applications.
2. Development of a value proposition and positioning of the final product, taking into consideration specific market needs and competitors.
3. Proven safety and efficacy.
4. **Private labelling; use your brand on your final, individualized product.**

# Therapeutic areas and finished products

## Gastrointestinal health

### i3.1®

*P. acidilactici* KABP™ 021  
*L. plantarum* KABP™ 022  
*L. plantarum* KABP™ 023

### AB-DIGEST

*B. longum* KABP™ 042  
*P. pentosaceus* KABP™ 041  
*L. rhamnosus* GG

## Pediatric health

### AB-KOLICARE®

*B. longum* KABP™ 042  
*P. pentosaceus* KABP™ 041

### AB-DIGEST kids

*B. longum* KABP™ 042  
*P. pentosaceus* KABP™ 041  
*L. rhamnosus* GG

## Oral health

### AB-DENTALAC®

*L. plantarum* KABP™ 051  
*L. brevis* KABP™ 052  
*P. acidilactici* KABP™ 053

### AB-IMPLALAC

*P. acidilactici* CECT 8904  
*P. pentosaceus* CECT 8905  
*P. acidilactici* CECT 8906

## Cardiometabolic health

### LipiGO®

*Saccharomyces cerevisiae*  
postbiotic (BGCC extract)

### AB-LIFE®

*L. plantarum* KABP™ 011  
*L. plantarum* KABP™ 012  
*L. plantarum* KABP™ 013

## Immune health

### AB-DR7

*L. plantarum* DR7

### INNERIM®

*L. plantarum* KABP™ 031  
*L. plantarum* KABP™ 032

### AB21®

*L. plantarum* KABP™ 033  
*L. plantarum* KABP™ 022  
*L. plantarum* KABP™ 023  
*P. acidilactici* KABP™ 021

## Brain health

### MINDBIOME®

*L. plantarum* DR7

### MINDBIOME® PLUS

*L. brevis* KABP™ 052  
*L. plantarum* KABP™ 023

## Women's health

### AB-CYSCARE

*L. plantarum* KABP™ 062  
*L. plantarum* KABP™ 063

### GYNTIMA®

*L. plantarum* KABP™ 061

## Skin health

### AB-SAKEI 65®

*L. sakei* proBio 65

### AB-SKINBIOTIC

*L. rhamnosus* KABP™ 071  
*Arthrospira platensis*

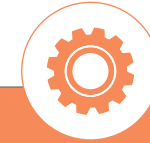
## Eye health

### AB-PROTEARS®

*L. sakei* proBio 65



# Our probiotic strains



<i>Pediococcus acidilactici</i> KABP™ 021	CECT 7483	<ul style="list-style-type: none"> <li>→ <b>Antagonistic activity</b> against IBS-related bacteria</li> <li>→ Synthesis of SCFA (<b>acetate</b>)</li> </ul>
<i>Lactiplantibacillus plantarum</i> KABP™ 022	CECT 7484	<ul style="list-style-type: none"> <li>→ Enhancement of the <b>intestinal barrier</b> via synthesis of poly-P granules</li> <li>→ Reduction of inflammation through the production of <b>acetylcholine</b></li> </ul>
<i>Lactiplantibacillus plantarum</i> KABP™ 023	CECT 7485	<ul style="list-style-type: none"> <li>→ <b>Antagonistic activity</b> against IBS-related pathogenic bacteria</li> <li>→ Synthesis of SCFA (<b>acetate</b>)</li> </ul>
<i>Lacticaseibacillus rhamnosus</i> GG	ATCC 531033	<ul style="list-style-type: none"> <li>→ Strong adhesive capacity to the intestinal epithelium</li> <li>→ Modulation of the innate and adaptative immune responses</li> <li>→ Synthesis of <b>p40 and p75 proteins</b>, that protect the epithelial barrier, enhance intestinal cells' function and promote the production of IgA</li> <li>→ Antagonistic activity against gastrointestinal tract pathogens</li> </ul>
<i>Bifidobacterium longum</i> KABP™ 042	CECT 7894	<ul style="list-style-type: none"> <li>→ Antagonistic activity against colic-related pathogenic bacteria</li> <li>→ Digestion of HMOs, supporting a <b>healthy gut colonisation</b></li> <li>→ Homofermentative metabolism (no CO<sub>2</sub> production)</li> <li>→ Synergic protection of intestinal epithelial barrier (tight junctions)</li> </ul>
<i>Pediococcus pentosaceus</i> KABP™ 041	CECT 8330	<ul style="list-style-type: none"> <li>→ Induction of anti-inflammatory molecules (<b>IL-10</b>)</li> <li>→ Homofermentative metabolism (no CO<sub>2</sub> production)</li> <li>→ Antagonistic activity against colic-related pathogenic bacteria</li> <li>→ Synergic protection of intestinal epithelial barrier (tight junctions)</li> </ul>
<i>Lactiplantibacillus plantarum</i> KABP™ 051	CECT 7481	<ul style="list-style-type: none"> <li>→ <b>Good aggregation and adhesion</b> to tissues in the oral cavity, preventing overgrowth of undesirable bacteria</li> </ul>
<i>Levilactobacillus brevis</i> KABP™ 052	CECT 7480	<ul style="list-style-type: none"> <li>→ Good tolerance against lysozyme and most antiseptics found in mouthwashes</li> <li>→ <b>Antagonistic activity</b> against oral pathogenic bacteria</li> </ul>
<i>Pediococcus acidilactici</i> KABP™ 053	CECT 8633	<ul style="list-style-type: none"> <li>→ Low production of acid and malodorous compounds</li> </ul>



# Our probiotic strains



<i>Lactiplantibacillus plantarum</i> KABP™ 011	CECT 7527	<ul style="list-style-type: none"> <li>→ Modification of the enterohepatic cycle through a high <b>BSH activity</b></li> <li>→ Capacity to capture intestinal cholesterol, promoting its excretion</li> </ul>
<i>Lactiplantibacillus plantarum</i> KABP™ 012	CECT 7528	
<i>Lactiplantibacillus plantarum</i> KABP™ 013	CECT 7529	
<i>Saccharomyces cerevisiae</i> postbiotic	BGCC extact	<ul style="list-style-type: none"> <li>→ Specific <b>binding to saturated fats</b>, limiting its absorption through the intestinal wall</li> </ul>
<i>Lactobacillus plantarum</i> DR7®	KCTC 13909BP	<ul style="list-style-type: none"> <li>→ Regulation of neuroactive molecules, with effects on the <b>serotonin-kynurenine</b> pathway and <b>dopamine-norepinephrine</b> pathway</li> <li>→ Modification of gut bacteria concentrations affecting the <b>gut-brain axis</b></li> <li>→ Improvement of anti-inflammatory (IL-10) versus pro-inflammatory (TNF-<math>\alpha</math>, IFN-<math>\gamma</math>) signals</li> <li>→ Reduction of stress-associated molecules (<b>cortisol</b>) plasma levels.</li> <li>→ Antioxidative properties</li> <li>→ <b>Direct antagonistic activity</b> against pathogens linked with URTIs</li> </ul>
<i>Levilactobacillus brevis</i> KABP™ 052	CECT 7480	<ul style="list-style-type: none"> <li>→ Production of GABA, dopamine and acetylcholine modulating the <b>gut-brain axis</b></li> </ul>
<i>Lactiplantibacillus plantarum</i> KABP™ 031	CECT 7315	<ul style="list-style-type: none"> <li>→ Synthesis of acetate linked with an increase in IgA (<b>increased immune protection</b>) and induction of T-cells</li> <li>→ Modulation of several anti and proinflammatory cytokines</li> <li>→ Reduction of TGF-<math>\beta</math>1, , <b>improving immune response</b></li> </ul>
<i>Lactiplantibacillus plantarum</i> KABP™ 032	CECT 7316	



# Our probiotic strains



<i>Lactiplantibacillus plantarum</i> KABP™ 033	CECT 30292	<ul style="list-style-type: none"> <li>→ High plnG gene activity, boosting the adaptative immune response by direct cross-talk with dendritic cells</li> <li>→ Increased production of specific antibodies</li> </ul>
<i>Latilactobacillus sakei</i> proBio 65	KCTC 10755BP	<ul style="list-style-type: none"> <li>→ Stimulation of <b>regulatory lymphocytes</b>, linked with an increased production of several cytokines (IL-10, IL-12, IL-17, IFN-<math>\gamma</math>)</li> <li>→ Reduction of chemokines associated with allergic responses and inflammatory processes</li> </ul>
<i>Lacticaseibacillus rhamnosus</i> KABP™ 071	CECT 3001	<ul style="list-style-type: none"> <li>→ <b>Normalization</b> of the insulin pathway, which is disregulated in acne formation</li> <li>→ <b>Immunomodulatory</b> effects</li> </ul>
<i>Lactiplantibacillus plantarum</i> KABP™ 062	CECT 8675	<ul style="list-style-type: none"> <li>→ <b>Antagonistic activity</b> against uropathogenic bacteria</li> <li>→ Survival of the vaginal environment</li> <li>→ <b>Biofilm formation and acidification capacity</b>, preventing overgrowth of undesirable bacteria</li> </ul>
<i>Lactiplantibacillus plantarum</i> KABP™ 063	CECT 8677	
<i>Lactiplantibacillus plantarum</i> KABP™ 061	CECT 7504	<ul style="list-style-type: none"> <li>→ <b>Antagonistic activity</b> against pathogenic bacteria linked with infections such as bacterial vaginosis</li> <li>→ High adhesion capacity to the vaginal epithelium</li> <li>→ <b>Acidification capacity</b> preventing overgrowth of undesirable bacteria</li> <li>→ Antagonistic activity against <i>Candida</i> spp. High resistance to simulated candidiasis vaginal environment</li> </ul>

# Our probiotic blends - Gastrointestinal health



CAPSULES



STICKS



DROPS

**i3.1®**

*P. acidilactici* KABP™ 021  
*L. plantarum* KABP™ 022  
*L. plantarum* KABP™ 023

## Indication

- Irritable bowel syndrome (IBS)
- Lactose intolerance
- Digestive wellbeing

Daily dose in final product: 3 billion CFU

Additional compounds: Vitamin D

## Scientific support

1. Lorenzo-Zúñiga V, et al. i3.1, a new combination of probiotics, improves irritable bowel syndrome-related quality of life. *World J. Gastroenterol.* 20, 8709–8716 (2014).
2. Barraza-Ortiz DA, et al. Combination of a probiotic and an antispasmodic increases quality of life and reduces symptoms in patients with irritable bowel syndrome: a pilot study. *Dig. Dis.* (2020)
3. Cano-Contreras A, et al. Efficacy of probiotic i3.1 symptomatic improvement in patients with lactose intolerance. *J Clin. Gastroenterol.* (2020).
4. Lorén V, et al. Comparative effect of the i3.1 probiotic formula in two animal models of colitis. *Probiotics Antimicrob. Proteins.* 9, 71–80 (2017).
5. Perez M, et al. Derived postbiotics of a multi-strain probiotic formula clinically validated for the treatment of Irritable bowel syndrome. *FASEB J.* 34, 1–1 (2020).



SHOTS



STICKS

**AB-DIGEST**

*B. longum* KABP™ 042  
*P. pentosaceus* KABP™ 041  
*L. rhamnosus* GG

## Indication

- Diarrhea, antibiotic co-treatment
- Microbiota restoration
- Immune support

Daily dose in final product: 6 billion CFU

## Scientific support\*

1. Hempel S, et al. Probiotics for the prevention and treatment of antibiotic-associated diarrhea: a systematic review and meta-analysis. *JAMA.* 9, 1959–69 (2012).
2. Szajewska H, et al. Systematic review with meta-analysis: *Lactobacillus rhamnosus* GG in the prevention of antibiotic-associated diarrhoea in children and adults. *Aliment. Pharmacol. Ther.* 42, 1149-57 (2014).
3. Tintore M, et al. Probiotic treatment with AB-KOLICARE causes changes in the microbiota which correlate with a reduction in crying time. *Int. J. Pharma Bio Sci.* 8, 281-288 (2017).
4. Astó E, et al. Equivalence of a novel *Lactobacillus rhamnosus* isolate to the reference ATCC53103 strain. Poster presented at SEPyP congress (2018).

Additional compounds: Inulin, Fructooligosaccharides (FOS), Zinc

\*Due to the big amount of published clinical studies with *L.rhamnosus* GG, only latest, robust reviews are listed

# Our probiotic blends - Pediatric health



DROPS

## AB-KOLICARE®

*B. longum* KABP™ 042  
*P. pentosaceus* KABP™ 041

### Indication

- Infant colic
- Microbiota development

Daily dose in final product: 1 billion CFU

### Scientific support

- Chen K. et al. Infantile Colic Treated With *Bifidobacterium longum* CECT7894 and *Pediococcus pentosaceus* CECT8330: A Randomized, Double-Blind, Placebo-Controlled Trial. *Frontiers in Pediatrics* 0, 939 (2021).
- Asto E et al. Probiotic Properties of *Bifidobacterium longum* KABP™ 042 and *Pediococcus pentosaceus* KABP™ 041 Show Potential to Counteract Functional Gastrointestinal Disorders in an Observational Pilot Trial in Infants. *Front Microbiol* 12, (2022).
- Santas JM, et al. *Pediococcus pentosaceus* CECT 8330 and *Bifidobacterium longum* CECT 7894 show a trend towards lowering infantile excessive crying syndrome in a pilot clinical trial. *Int J Pharm Bio Sci.* 6, 458-466 (2015).
- Tintore M, et al. Probiotic treatment with AB-KOLICARE causes changes in the microbiota which correlate with a reduction in crying time. *Int. J. pharma Bio Sci.* 8, 281-288 (2017).
- Tintore M, et al. Gut microbiota dysbiosis and role of probiotics in infant colic. *Arch. Clin. Microbiol.* 08, 56 (2017).
- Dong F et al. *Pediococcus pentosaceus* CECT 8330 protects DSS-induced colitis and regulates the intestinal microbiota and immune responses in mice. *Journal of Translational Medicine* 20, 1-16 (2022).

Additional compounds: Vitamin D



SHOTS



STICKS



DROPS

## AB-DIGEST

*B. longum* KABP™ 042  
*P. pentosaceus* KABP™ 041  
*L. rhamnosus* GG

### Indication

- Diarrhea, antibiotic co-treatment
- Microbiota restoration
- Immune support

Daily dose in final product: 6 billion CFU

### Scientific support\*

- Szajewska H, et al. Meta-analysis: *Lactobacillus* GG for treating acute gastroenteritis in children - updated analysis of randomised controlled trials. *Aliment Pharmacol Ther.* 38, 467-76 (2013).
- Szajewska H, et al. Systematic review with meta-analysis: *Lactobacillus rhamnosus* GG in the prevention of antibiotic-associated diarrhoea in children and adults. *Aliment Pharmacol Ther.* 42, 1149-57 (2015).
- Tintore M, et al. Probiotic treatment with AB-KOLICARE causes changes in the microbiota which correlate with a reduction in crying time. *Int. J. pharma Bio Sci.* 8, 281-288 (2017).
- Asto E et al. Equivalence of a novel *Lactobacillus rhamnosus* isolate to the reference ATCC53103 strain. Poster presented at SEPyP congress (2018)

Additional compounds: Inulin, Fructooligosaccharides (FOS), Zinc

\*Due to the big amount of published clinical studies with *L.rhamnosus* GG, only latest, robust reviews are listed



# Our probiotic blends - Oral health



TABLETS



VIALS



GUMS

## AB-DENTALAC®

*L. plantarum* KABP™ 051  
*L. brevis* KABP™ 052  
*P. acidilactici* KABP™ 053

### Indication

- Gingivitis, periodontitis
- Protection after oral surgery
- Prevention of caries, halitosis

Daily dose in final product: 1 billion CFU

### Scientific support

1. Nart J et al. Oral colonization by *Levilactobacillus brevis* KABP™ 052 and *Lactiplantibacillus plantarum* KABP™ 051: A Randomized, Double-Blinded, Placebo-Controlled Trial (Pilot Study). *J Clin Exp Dent* 13, 433–439 (2021).
2. Montero E, et al. Clinical and microbiological effects of the adjunctive use of probiotics in the treatment of gingivitis: A randomized controlled clinical trial. *J. Clin. Periodontol.* 44, 708–716 (2017).
3. Ferrés-Amat E, et al. Probiotics diminish the post-operative pain following mandibular third molar extraction: A randomised double-blind controlled trial (pilot study). *Benef. Microbes* 11, 631–639 (2020).
4. Calabuig RP, et al. Oral probiotic reduces pain after third molar extraction procedure. Poster presented at SEPyP congress (2019).
5. Bosch M, et al. Isolation and characterization of probiotic strains for improving oral health. *Arch Oral Biol.* 57, 539-349 (2012).

Additional compounds: Vitamin D



TABLETS



VIALS

## AB-IMPLALAC

*P. acidilactici* CECT 8904  
*P. pentosaceus* CECT 8905  
*P. acidilactici* CECT 8906

### Indication

- Peri-implantitis prevention
- Oral microbiota balance

Daily dose in final product: 1 billion CFU

### Scientific support

1. Clinical trial on-going: evaluation of the improvement of peri-implantitis state in implants treated with probiotics.

Additional compounds: Vitamin D

# Our probiotic blends - Cardiometabolic health



CAPSULES



STICKS



DROPS

## AB-LIFE®

*L. plantarum* KABP™ 011  
*L. plantarum* KABP™ 012  
*L. plantarum* KABP™ 013

### Indication

- Hypercholesterolemia
- Hypertriglyceridemia

Daily dose in final product: 1.2 billion CFU

### Scientific support

1. Fuentes MC, et al. A randomized clinical trial evaluating a proprietary mixture of *Lactobacillus plantarum* strains for lowering cholesterol. *Med. J. Nutrition Metab.* 9, 125–135 (2016).
2. Espadaler J, et al. Demographic and clinical characteristics influencing the effects of a cholesterol-lowering probiotic. *Ann. Nutr. Metab.* 74, 1–31 (2019).
3. Bosch M, et al. *Lactobacillus plantarum* CECT 7527, 7528 and 7529: Probiotic candidates to reduce cholesterol levels. *J. Sci. Food Agric.* 94, 803–809 (2014).
4. Kim DH, et al. Effect of mixture of *Lactobacillus plantarum* CECT 7527, 7528, and 7529 on obesity and lipid metabolism in rats fed a high-fat diet. *J. Korean Soc. Food Sci. Nutr.* 43, 1484–1490 (2014).
5. Mukerji P, et al. Safety evaluation of AB-LIFE®: Antibiotic resistance and 90-day repeated-dose study in rats. *Food Chem. Toxicol.* 92, 117–128 (2016).
6. Guerrero-Bonmatty, R et al. A Combination of *Lactopantibacillus plantarum* strains CECT7527, CECT7528, and CECT7529 plus monacolin K reduces blood cholesterol: Results from a randomized, double-blind, placebo-controlled Study. *Nutrients* 2021, Vol. 13, Page 1206 13, 1206 (2021).

Additional compounds: Vitamin B1,  
 Omega 3 (alpha linolenic acid)



STICKS

## Lipigo®

*Saccharomyces cerevisiae*  
 postbiotic (BGCC extract)

### Indication

- Prevents rebound effect
- Safe weight loss
- Overweight and type I obesity

Daily dose in final product: 3000 mg



### Scientific support

1. Santas J, et al. Effect of a polysaccharide-rich hydrolysate from *Saccharomyces cerevisiae* (LipiGO®) in body weight loss: randomised, double-blind, placebo-controlled clinical trial in overweight and obese adults. *J Sci Food Agric.* 97, 4250–7 (2017).
2. Valero-Pérez, M. et al. Regular consumption of Lipigo® promotes the reduction of body weight and improves the rebound effect of obese people undergo a comprehensive weight loss program. *Nutrients* 2020, Vol. 12, Page 1960 12, 1960 (2020).
3. Santas J, et al. Polysaccharide-rich hydrolysate from *Saccharomyces cerevisiae* (LipiGO®) increases fatty acid and neutral sterol excretion in guinea pigs fed with hypercholesterolemic diets. *Eur J Lipid Sci Technol.* 119, 17001-04 (2017).

# Our probiotic blends - Brain health



CAPSULES



STICKS

**MINDBIOME®**

*L. plantarum DR7*

## Indication

- Stress and anxiety
- Emotional well-being
- Memory and cognition

Daily dose in final product: 1 billion CFU

Additional compounds: Magnesium

## Scientific support

1. Chong HX, et al. *Lactobacillus plantarum* DR7 alleviates stress and anxiety in adults: A randomized, double-blind, placebo-controlled study. *Benef. Microbes* 10, 355–373 (2019).
2. Liu G, et al. *Lactobacillus plantarum* DR7 modulated bowel movement and gut microbiota associated with dopamine and serotonin pathways in stressed adults. *Int. J. Mol. Sci.* 21, 4608 (2020).
3. Lew LC, et al. Effects of potential probiotic strains on the fecal microbiota and Metabolites of d-Galactose-Induced Aging Rats Fed with High-Fat Diet. *Probiotics Antimicrob. Proteins* 12, 545–562 (2020).



CAPSULES



STICKS

**MINDBIOME® PLUS**

*L. brevis* KABP™ 052  
*L. plantarum* KABP™ 023

## Indication

- Autism spectrum disorder (ASD) and attention deficit hyperactivity disorder (ADHD)
- Concentration and focus

Daily dose in final product: 1 billion CFU

Additional compounds: Magnesium, Vitamin D, Vitamin B

## Scientific support

1. Clinical trial on-going: Food intervention in children suffering from autism spectrum disorder (ASD) and/or attention deficit hyperactivity disorder (ADHD): A randomized, double-blind, placebo-controlled study.
2. Clinical trial on-going: Randomized clinical trial to analyse the effect of a probiotic mixture on stress response and cognitive and emotional variables.
3. Pre-clinical trial in mouse model of induced cognitive deficit to test the probiotic effect on cognitive dysfunction. Manuscript under preparation.

# Our probiotic blends - Immune health



CAPSULES



STICKS



DROPS

## AB-DR7

*L. plantarum* DR7

### Indication

- Upper respiratory tract infections (URTIs)
- Respiratory health

Daily dose in final product: 1 billion CFU

### Scientific support

1. Chong HX, et al. *Lactobacillus plantarum* DR7 improved upper respiratory tract infections via enhancing immune and inflammatory parameters: A randomized, double-blind, placebo-controlled study. *J. Dairy Sci.* 102, 4783–4797 (2019).
2. Altadill T, et al. Does *Lactopantibacillus plantarum* DR7 reduce days of upper respiratory tract infections and fever? A post-hoc analysis of a randomized, placebo-controlled trial. *FASEB Journal* (2021).
3. Baud D, et al. Using probiotics to flatten the curve of coronavirus disease COVID-2019. *Pandemic. Front. Public Heal.* 8, (2020).
4. Lew LC, et al. Effects of potential probiotic strains on the fecal microbiota and metabolites of d-galactose-induced aging rats fed with high-fat diet. *Probiotics Antimicrob. Proteins.* 12, 545–562 (2020).

Additional compounds: Vitamin D, C, Zinc



CAPSULES



STICKS



DROPS

## INNERIM®

*L. plantarum* KABP™ 031  
*L. plantarum* KABP™ 032

### Indication

- Immunity support
- Immunosenescence prevention

Daily dose in final product: 1 billion CFU

### Scientific support

1. Mañé J, et al. A mixture of *Lactobacillus plantarum* CECT 7315 and CECT 7316 enhances systemic immunity in elderly subjects. A dose-response, double-blind, placebo-controlled, randomized pilot trial. *Nutr. Hosp.* 26, 228-235 (2011).
2. Bosch M, et al. El consumo del probiótico *Lactobacillus plantarum* CECT 7315/7316 mejora el estado de salud general en personas de edad avanzada. *Nutr. Hosp.* 26, 642-645 (2011).
3. Bosch M, et al. *Lactobacillus plantarum* CECT 7315 and CECT 7316 stimulate immunoglobulin production after influenza vaccination in elderly. *Nutr. Hosp.* 27, 504–509 (2012).
4. Vilahur G, et al. *Lactobacillus plantarum* CECT 7315/7316 intake modulates the acute and chronic innate inflammatory response. *Eur. J. Nutr.* 54, 1161–1171 (2015).
5. Bosch M, et al. Probiotic properties of *Lactobacillus plantarum* CECT 7315 and CECT 7316 isolated from faeces of healthy children. *Lett. Appl. Microbiol.* 54, 240–246 (2012).

Additional compounds: Vitamin B<sub>9</sub>, B<sub>6</sub>, B<sub>12</sub>, C, A, Zinc, Selenium

# Our probiotic blends - Immune health



For more info visit:

[ab21probiotic.com](https://ab21probiotic.com)



## AB21<sup>®</sup>

*L. plantarum* KABP<sup>™</sup> 033  
*L. plantarum* KABP<sup>™</sup> 022  
*L. plantarum* KABP<sup>™</sup> 023  
*P. acidilactici* KABP<sup>™</sup> 021

Daily dose in final product: 2 billion CFU

Additional compounds: Vitamin D

## Indication

- Mild to moderate diagnosed COVID-19
- Increased exposure to viruses
- To potentiate immunity after vaccination

## Scientific support

1. Gutiérrez-Castrellón, P. et al. Probiotic improves symptomatic and viral clearance in Covid19 outpatients: a randomized, quadruple-blinded, placebo-controlled trial. *Gut Microbes* 14, (2022).
2. Gutiérrez-Castrellon, P et al. Probiotic Effect on SARS-CoV2 Immunity Is Associated to Type-1 Interferons: A Post-Hoc Analysis of a Randomized, Placebo-Controlled Trial. Experimental Biology Congress, April 2022.

# Our probiotic blends - Skin health



CAPSULES



STICKS



CREAM

## AB-SAKEI 65®

*L. sakei* proBio 65

### Indication

- Atopic dermatitis
- Skin redness and discomfort

Daily dose in final product: 5 billion CFU

### Scientific support

1. Woo SI, et al. Effect of *Lactobacillus sakei* supplementation in children with atopic eczema-dermatitis syndrome. *Ann. Allergy, Asthma Immunol.* 104, 343–348 (2010).
2. Park SB, et al. Effect of emollients containing vegetable-derived lactobacillus in the treatment of atopic dermatitis symptoms: Split-body clinical trial. *Ann. Dermatol.* 26, 150–155 (2014).
3. Rather IA, et al. Oral administration of live and dead cells of *Lactobacillus sakei* proBio65 alleviated atopic dermatitis in children and adolescents: a randomized, double-blind, and placebo-controlled Study. *Probiotics Antimicrob. Proteins* (2020).
4. Lim J, et al. Immune-modulating characteristics of *Lactobacillus sakei* proBio65 isolated from Kimchi. *Korean J. Microbiol. Biotechnol.* 39, 313–316 (2011).
5. Kim JY, et al. Atopic dermatitis-mitigating effects of new *Lactobacillus* strain, *Lactobacillus sakei* probio 65 isolated from Kimchi. *J. Appl. Microbiol.* 115, 517–526 (2013).

Additional compounds: Zinc, Niacin, Vitamin C



CAPSULES



STICKS

## AB-SKINBIOTIC

*L.rhamnosus* KABP™ 071  
*Arthrospira platensis*

### Indication

- Mild to moderate acne
- Skin microbiota balance

Daily dose in final product: 4 billion CFU

### Scientific support

1. Clinical trial on-going: Effects of the administration of a probiotic formula in acne patients. A randomized, double blind, placebo-controlled study.

Additional compounds: None

# Our probiotic blends - Women's health



CAPSULES

## AB-CYSCARE

*L. plantarum* KABP™ 062  
*L. plantarum* KABP™ 063

### Indication

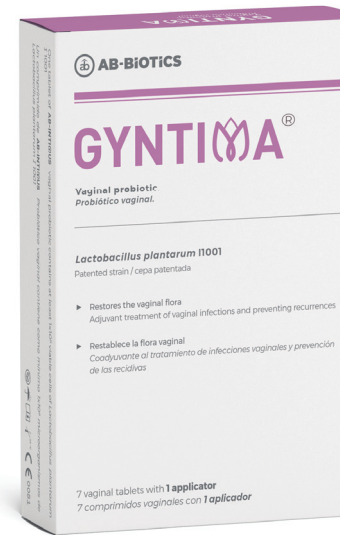
- Urinary tract infections (UTIs)
- Urogenital microbiota balance

Daily dose in final product: 1 billion CFU

Additional compounds: Cranberry extract, Vitamin C

### Scientific support\*

1. Simón E, et al. Screening of *Lactobacilli* strains of human origin candidates for the prevention of urinary tract infections. *Ann. Nutr. Metab.* 74, 1-31 (2019).
2. Padayatty SJ, et al. Vitamin C as an antioxidant: evaluation of its role in disease prevention. *J Am Coll Nutr.* 22, 18-35 (2003)
3. Ochoa-Brust GJ, et al. Daily intake of 100 mg ascorbic acid as urinary tract infection prophylactic agent during pregnancy. *Acta. Obstet. Gynecol. Scand.* 86, 783-7 (2007).
4. Wang CH, et al. Cranberry-containing products for prevention of urinary tract infections in susceptible populations: a systematic review and meta-analysis of randomized controlled trials. *Arch Intern Med.* 172, 988-96 (2012).
5. Salo J, et al. Cranberry juice for the prevention of recurrences of urinary tract infections in children: a randomized controlled trial. *Clin Infect Dis.* 54, 340-6 (2012).



VAGINAL TABLETS



CAPSULES

## GYNTIMA®

*L. plantarum* KABP™ 061

### Indication

- Vaginal candidiasis
- Vaginal microbiota balance

Daily dose in final product: 0.1 billion CFU

### Scientific support

1. Palacios S, et al. Is it possible to prevent recurrent vulvovaginitis? Role of *Lactobacillus plantarum* I1001 (CECT7504). *Eur J Clin Microbiol. Infect. Dis.* 35, 1701-8 (2016).
2. Clinical trial on-going: Interventional study to evaluate the effect of the oral administration of *L. plantarum* on vaginal microbiota.

Additional compounds: Zinc, Biotin, Selenium

\*Clinical trials and meta-analyses of AB-CYSCARE added compounds (cranberry extract, vitamin C) are also listed.

# Our probiotic blends - Eye health



EYE DROPS

## AB-PROTEARS®

*L. sakei* proBio 65

### Indication

- Ocular irritation
- Allergies and inflammation of the eye surface

Daily dose in final product: 1 billion CFU

### Scientific support

1. Clinical trial on-going
2. *In vivo* testing for skin sensitization and ocular irritation



# Our available formats

## CAPSULES



- 5 capsules
- 15 capsules
- 30 capsules
- bulk

## MICROENCAPSULATED CAPSULES



- 5 capsules
- 15 capsules
- 30 capsules
- bulk

Probiotics microencapsulated with PROBS® technology, to ensure stability when mixed with specific ingredients like Omega 3 oil or Cranberry extract

## STICKS



- 2 sticks
- 20 sticks
- 30 sticks
- 42 sticks
- 90 sticks
- bulk

## SHOTS



- 5 shots
- 7 shots
- 10 shots
- bulk

## BLUE OR INLINE DROPPER



- 3ml shots
- 8ml shots
- 10ml shots
- bulk

# Our available formats

## EYE DROPPER



- 3ml dropper
- 8ml dropper

## ORAL GUMS



## ORAL TABLETS



- 5 tablets
- 10 tablets
- 15 tablets
- 30 tablets
- 60 tablets
- bulk

## VIAL



- 3ml
- 8ml shots
- 10ml shots
- bulk

## VAGINAL TABLETS



- 7 tablets + 1 applicator
- 7 tablets no applicator
- 7 tablets blister in bulk
- 7 tablets + 7 applicator

# Quality standards



Patented products



Clinically-proven  
and safe



Organic strains,  
natural origin



Allergen-free



Qualified Presumption  
of Safety status (EFSA)



Not modified  
genetically



Generally Recognised as Safe  
(FDA) and/or Natural Product  
Number (Health Canada)

# As a leading B2B company with global presence:

## **We support our partners throughout product lifespan**

R&D, market access and marketing specialists. Complete, personalised support every step of the way

## **We adapt to our partners' aspirations and needs**

Co-development of probiotic solutions following market trends



[www.ab-biotics.com](http://www.ab-biotics.com)