

# Flora·Matrix Postbiotics

A heat-treated *Lactobacillus* blend designed to deliver bioactive metabolites and balance the gastrointestinal and immune systems.

Gluten Free

Soy Free



- Delivers evidence-based dosages of heat-treated *Lactobacillus plantarum* L-137 and *Lactobacillus paracasei* MCC-1849 in just one capsule per day
- These postbiotics offer pre-converted nutrients like butyric acids and other short-chain fatty acids that are ready-to-use energy sources for gut bacteria, even in the face of an imbalanced or disrupted microbiome
- Studied and designed to positively modulate and support immune function in a variety of adult populations
- 30 vegetable capsules per box
- Shelf-stable and free from gluten and soy

For the past few decades, probiotics have dominated emerging research with regard to the importance of microbes for regulating human health. Co-evolving over millions of years alongside our immune system, we've come to depend on them for our health as much as they've come to depend on us. At the same time, prebiotics are well-recognized and have been studied for their necessary role in feeding probiotic species. Most

recently, research has come to include a related group of compounds known as postbiotics.

Postbiotics by definition are not live bacteria, but rather bioactive compounds that are secreted by probiotics. Postbiotics represent a new category of therapeutic intervention. The significant impact of postbiotic metabolites on the microbiome helps to explain why a relatively small amount of probiotics can have such a profound impact on the expansive microbiome with gastrointestinal, immune, and systemic health effects. Postbiotics share many health benefits with prebiotics and probiotics, yet they do not require fermentation, survival, or the need to overcome other barriers in metabolization. Instead, they provide pre-converted nutrients like butyric acids and other short-chain fatty acids that are ready-to-use energy sources for your gut bacteria.

Clinical trials on postbiotics have demonstrated a multitude of beneficial health activities ranging from metabolic regulation and weight management to immunomodulation and antioxidant benefits. For example, *Lactobacillus plantarum* L-137 is a heat-killed postbiotic with extensive in-vitro and in-vivo data to support its ability to support the immune system by increasing both innate and acquired immunity. L-137 boosts interferon-beta levels,

improves host defence against influenza, and significantly reduces the incidence of upper respiratory tract infections (URTIs) in stressed individuals. L-137 has also been demonstrated to decrease markers of inflammation such as ALT and improve lipid metabolism, as per total cholesterol and LDL cholesterol levels in healthy individuals with elevated BMI and baseline inflammation.

Similarly, *Lactobacillus paracasei* MCC-1849 is a heat-killed postbiotic that has been shown to reduce incidence of the common cold, symptoms scores and total number of days with symptoms in susceptible individuals, and it can improve the antibody response in elderly individuals. Just like L-137, MCC-1849 appears to modulate the immune response through increased interleukin-12 (IL-12) and downstream effects such as natural killer cell activation. Clearly, postbiotic preparations have the capability to activate and alter the function of immune cells. Unlike probiotics, postbiotics provide the necessary bioactive compounds to offer these benefits even if microbiome function is disrupted by conditions like irritable bowel syndrome, small intestinal bowel overgrowth, or dysbiosis.

Perhaps the most interesting and arguably the most important feature of a postbiotic is its quorum-sensing capability. Quorum-sensing refers to the communication tactics of bacteria both within its species and between species using signalling proteins. It is responsible for preventing the colonization of pathogenic bacteria and helping to regulate and balance microbial populations within the microbiome. Direct supplementation with postbiotics delivers a greater amount of these quorum-sensing signalling proteins, ultimately improving the communication of microflora to regulate proper immune responses and bacterial counts.

**Flora-Matrix Postbiotics** by Cyto-Matrix contains heat-treated *Lactobacillus plantarum* L-137 and *Lactobacillus paracasei* MCC-1849 in evidence-based dosages to deliver a natural blend of enzymes, metabolites, and other bioactive compounds that support the immune response and nurture the microbiome. Flora-Matrix Postbiotics can be taken in addition to prebiotics and probiotics, but also function independently and provide health benefits when taken as a solo therapy. Each blister pack box contains 30 shelf-stable capsules and is gluten-free, soy-free, and GMO-free.

#### Each capsule contains

Lactobacillus paracasei MCC1849 .....	20mg
Immuno-LP20 .....	10mg
<small>(Lactiplantibacillus plantarum L-137)</small>	



#### Non-Medicinal Ingredients

Vegetable-grade magnesium stearate, ascorbic acid, acacia (Fibregum™), maltodextrin. Capsule: hypromellose.

#### Recommended Use Claim

Helps to support the immune system and reduce the incidence of cold-like symptoms.

#### Directions of Use

Adults - Take 1 capsule per day at least 2-3 hours before or after antibiotics or as directed by a healthcare professional.

### Cautions and Warnings

Do not use if safety seal is broken. Consult a healthcare professional prior to use especially if you have a fever, vomiting, bloody diarrhoea or severe abdominal pain. Stop use and consult a healthcare professional if symptoms of digestive upset (e.g. diarrhea) occur, worsen and/or persists beyond 3 days.

### Contraindications

Do not use this product if you have an immune-compromised condition (e.g. AIDS, lymphoma, patients undergoing long-term corticosteroid treatment).

### Known Adverse Reactions

Do not use this product if you have a milk allergy.

### Storage Conditions

Do not use if safety seal is broken. Ne pas utiliser si le sceau de sécurité est brisé.