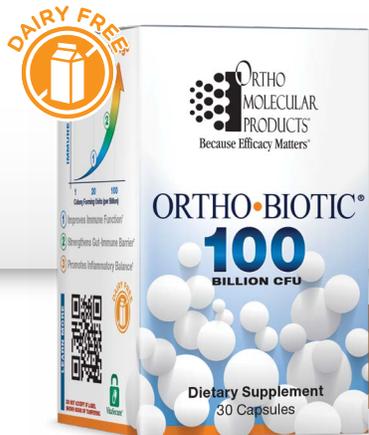


# ORTHO BIOTIC® 100



## CLINICAL APPLICATIONS

- Enhances Immune System Function
- Maintains a Healthy Gut-Immune Barrier
- Maintains Normal Inflammatory Balance
- Supports Digestion and Micronutrient Absorption
- Maintains Gastrointestinal Health



## GASTROINTESTINAL SUPPORT

Ortho Biotic® 100 is a high-dose probiotic delivering 100 billion active cultures for cases of gastrointestinal (GI) and immune distress. Going beyond the threshold of traditional probiotic support, high-dose probiotics influence GI health and immunity in ways lower-dose probiotics cannot. Shown to activate over 1,700 genes involved in immune and inflammatory signaling, high-dose probiotics improve immune function, maintain a healthy gut-immune barrier, and maintain normal inflammatory balance. Each Ortho Biotic® 100 capsule provides six proven probiotic strains chosen for their ability to survive the harsh GI environment to deliver superior results.

### Overview

The GI tract is a finely balanced environment where roughly 500 different strains of bacteria compete for space and nutrients. When there is a healthy balance (eubiosis), few symptoms exist. However, dysbiosis can occur when an overabundance of potentially harmful organisms prevail. The natural microflora balance can be upset by medications, excessive alcohol consumption or poor dietary intake.

Probiotics have been extensively studied and are characterized as having broad GI and immune benefits, including (1) increasing the population of healthy bacteria following microflora imbalance; (2) supporting healthy bowel function; (3) increasing the production of short-chain fatty acids, which provide energy to the cells of the intestinal lining; (4) strengthening the gut-immune barrier by promoting a healthy gut mucosa; (5) aiding in the digestion of difficult-to-break-down compounds like lactose and casein; and (6) enhancing detoxification of harmful compounds.

Because probiotics are live organisms, there are many challenges associated with manufacturing and distributing probiotic supplements. For a probiotic to be effective, it must be shelf-stable through the expiration date and precisely delivered to the intestinal tract, where it can have maximum benefit. BioShield® technology is an innovative manufacturing process developed to ensure consistent and reliable results. The microorganisms in Ortho Biotic® 100 are protected, sealed and freeze dried away from moisture, heat, light and oxygen. This allows the bacteria to remain dormant until they are exposed to moisture in the GI tract. By utilizing advanced encapsulation technology, the probiotic organisms are preserved and released on-target for maximum benefit.

### ***Lactobacillus acidophilus (La-14)***<sup>†</sup>

*Lactobacillus acidophilus* is a beneficial bacterial strain that is normally found in the intestinal tract and mouth and is commercially used in dairy products for the production of acidophilus-type yogurt. *L. acidophilus* ferments various carbohydrates to produce lactic acid, which increases the absorption and bioavailability of minerals. This includes calcium, copper, magnesium and manganese. The production of lactic acid also promotes health by creating an inhospitable environment for unwanted agents.<sup>1</sup> *L. acidophilus* has been shown to protect intestinal cells by competing for adhesion space in the gut against harmful bacteria. The *L. acidophilus* strain in Ortho Biotic® 100 has been specifically chosen because of its strong adherence and survival attributes in the GI tract. It has been demonstrated in vitro to tolerate exposure to gastric acid and bile salts, and it has the ability to withstand certain medications.<sup>2</sup>

<sup>†</sup> These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

### **Lactobacillus paracasei (Lpc-37®)†**

*Lactobacillus paracasei* has been shown to protect against the harmful effects of unwanted bacteria.<sup>3</sup> *L. paracasei* colonizes the intestinal tract by reinforcing defense mechanisms that support an immune response. It does this by supporting T-helper cell production and secreting secretory IgA (sIgA), an antibody critical for supporting intestinal immunity.<sup>4</sup> *L. paracasei* is highly resistant to acids and enzymes in the GI tract and is known to produce short-chain fatty acids for healthy intestinal barrier function.<sup>5</sup>

### **Bifidobacterium bifidum (Bb-02)†**

*Bifidobacterium bifidum* has been shown to effectively compete with harmful bacteria, which suggests *B. bifidum's* lactic acid and acetic acid production helps maintain microflora balance.<sup>6</sup>

### **Bifidobacterium lactis (BI-04)†**

*Bifidobacterium lactis* is predominantly found in the colon. A double-blind, randomized, placebo-controlled trial on subjects receiving *B. lactis* or placebo for eight weeks found that *B. lactis* supported a balanced immune response in individuals hypersensitive to environmental allergens.<sup>7</sup> Studies examining immune development and dietary supplementation with *B. lactis* have shown that it supports GI health by reducing intestinal permeability.<sup>8</sup>

### **Lactobacillus plantarum (Lp-115)†**

*Lactobacillus plantarum* is a beneficial bacteria commonly found in fermented foods, including sauerkraut, pickles, brined olives and sourdough. *L. plantarum* has been found to compete against unwanted bacteria due to the production of bacteriocins (lethal proteins) that inhibit bacterial growth.<sup>9</sup> Studies have also demonstrated that *L. plantarum* helps boost the immune response by stimulating Th1-mediated immunity.<sup>10</sup>

### **Lactobacillus rhamnosus (GG)†**

*Lactobacillus rhamnosus* has been proven to have remarkable survivability in the acid and bile environments in the GI tract. *L. rhamnosus* is particularly useful because of its ability to adhere to cells, enhance microflora balance and inhibit adherence of unwanted agents. *L. rhamnosus* was also found to positively affect inflammatory and immune gene signaling of over 1,700 genes when administered in high doses.<sup>11</sup>

### **Directions**

1 capsule per day or as recommended by your health care professional.

### **Does Not Contain**

Gluten, corn, yeast, artificial colors or flavors.

### **Cautions**

If you are pregnant or nursing, consult your physician before taking this product.

<b>Supplement Facts</b> <sup>v4</sup>		
Serving Size 1 Capsule Servings Per Container 30 & 60		
	Amount Per Serving	% Daily Value
Calories	5	
Total Carbohydrate	<1 g	<1% *
Sodium	5 mg	<1%
Potassium	95 mg	2%
Proprietary Blend	423 mg (100 Billion CFU <sup>++</sup> )	
<i>Lactobacillus acidophilus</i> (La-14)		**
<i>Bifidobacterium bifidum</i> (Bb-02)		**
<i>Lactobacillus rhamnosus</i> (GG)		**
<i>Bifidobacterium lactis</i> (BI-04)		**
<i>Lactobacillus plantarum</i> (Lp-115)		**
<i>Lactobacillus paracasei</i> (Lpc-37)		**

\* Percent Daily Values are based on a 2,000 calorie diet.  
\*\* Daily Value not established.

Other Ingredients: Microcrystalline Cellulose, Hypromellose (Natural Vegetable Capsule), Silicon Dioxide and Magnesium Stearate.

++Colony Forming Units

ID# 474030 30 Capsules

ID# 474060 60 Capsules

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## References

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