# Ortho Biotic®

Ortho Molecular Products®
Because Efficacy Matters®




### *CLINICAL APPLICATIONS*

- *Helps Maintain Gastrointestinal Balance*
- *Increases Secretory IgA for Enhanced Gut Immunity*
- *Supports Bowel Regularity*
- *Supports Digestion and Micronutrient Absorption*

## GASTROINTESTINAL SUPPORT

**Ortho Biotic® is a unique probiotic formula designed to deliver active organisms shown to promote healthy gut microflora, protect intestinal integrity and boost immune function. Included in this formula is *Saccharomyces boulardii*, an extensively researched microorganism shown to help restore microflora balance by enhancing commensal organism function. Each Ortho Biotic® capsule provides seven proven probiotic strains chosen for their ability to withstand the harsh gastrointestinal environment and adhere to the intestinal tract 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, this natural microflora balance can become disrupted by certain medications, excessive alcohol consumption, or poor dietary intake, leading to an overabundance of potentially harmful organisms (dysbiosis).

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.

BioShield® technology is Ortho Molecular Products' integrated probiotic protection system designed to support organism stability, survivability, and targeted delivery. Because probiotics are living microorganisms, they must be protected from environmental stressors such as moisture, heat, light, and oxygen throughout manufacturing, storage, and distribution. BioShield® technology uses a specialized cryoprotection and freeze-drying process to help preserve probiotic organisms in a stable, dormant state until they encounter moisture within the gastrointestinal tract. Paired with advanced delayed-release encapsulation, this approach helps shield the organisms from harsh upper-GI conditions and supports more precise delivery to the intestinal tract, where the probiotics can provide their intended benefit. This process is intended to help ensure consistent potency, shelf stability through expiration, and reliable probiotic performance.

## *Lactobacillus acidophilus* (La-14)

*Lactobacillus acidophilus* is a beneficial bacteria strain normally found in the intestinal tract and mouth, as well as in acidophilus-type yogurt. *L. acidophilus* ferments various carbohydrates to produce lactic acid, which increases the bioavailability of minerals, including calcium, copper, magnesium and manganese. The production of lactic acid also creates an inhospitable environment for invading organisms.[1] *L. acidophilus* has shown to protect intestinal cells by competing for adhesion space in the gut against harmful bacteria. The strain in Ortho Biotic® 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, bile salts and certain medications.[2] *L. acidophilus* La-14 has shown to help maintain normal cardiovascular health, GI balance, and inflammatory balance.[3]

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## *Lactobacillus paracasei* (Lpc-37)

*Lactobacillus paracasei* has shown to protect against the harmful effects of unwanted bacteria.[4] *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.[5] *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.[6] A randomized, double-blind, placebo-controlled trial of 120 adults found 17.5 billion CFU of *L. paracasei* Lpc-37 daily for five weeks to help with stress resilience.[7]

## *Bifidobacterium bifidum* (Bb-06)

*Bifidobacterium bifidum* has been shown to effectively compete with harmful bacteria to help maintain microflora balance, aid with maintaining normal immune function, and help with normal GI processes.[8,9]

## *Bifidobacterium lactis* (Bl-04)

*Bifidobacterium lactis* is predominantly found in the colon. An eight-week, double-blind, randomized, placebo-controlled trial found that *B. lactis* supported a balanced immune response in individuals hypersensitive to environmental allergens.[10] *B. lactis* has been shown to support GI health by reducing intestinal permeability.[11] A 150-day, randomized, double-blind, placebo-controlled trial of 465 adults found that 2 billion CFU daily of *B. lactis* Bl-04 reduced the risk of episodic difficult breathing by 27%.[12]

## *Lactobacillus plantarum* (Lp-115)

*Lactobacillus plantarum* is a beneficial bacteria strain commonly found in fermented foods, including sauerkraut, pickles, brined olives and sourdough. It has been associated with systemic health benefits such as promoting inflammatory balance and normal metabolic health.[13] *L. plantarum* has been found to compete against unwanted bacteria due to the production of bacteriocins (lethal proteins).[14] Evidence supports that *L. plantarum* helps boost the immune response by stimulating Th1-mediated immunity.[15]

## *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.[16] *L. rhamnosus* GG has clinical implications in maintaining *H. pylori balance*, GI normalcy, and a regular metabolic profile.[17]

## *Saccharomyces boulardii*

*Saccharomyces boulardii* is a probiotic yeast that was first isolated from the skin of the tropical fruits lychee and mangosteen. In 1923, French scientist Henri Boulard observed mangosteen consumption controlled occasional diarrhea in natives of Southeast Asia. *S. boulardii* plays a role in supporting immune defense by increasing levels of sIgA, creating a first line of defense that helps bind and clear harmful bacteria.[18] Evidence supports the supplementation of *S. boulardii* in inhibiting proliferation of bacterial and fungal agents.[19]

## Directions

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

## Does Not Contain

Gluten, corn, artificial colors or flavors.

## Cautions

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

**Supplement Facts**

Serving Size 1 Capsule
Servings Per Container 30 & 60

| | Amount Per Serving | % Daily Value |
|---|---|---|
| Proprietary Blend | 133 mg (20 Billion CFU++) | |
| *Lactobacillus acidophilus* (La-14) | | * |
| *Bifidobacterium bifidum* (Bb-06) | | * |
| *Lactobacillus rhamnosus* (GG) | | * |
| *Lactobacillus paracasei* (Lpc-37) | | * |
| *Bifidobacterium lactis* (Bl-04) | | * |
| *Lactobacillus plantarum* (Lp-115) | | * |
| *Saccharomyces boulardii* | 200 mg (3 Billion CFU++) | * |

* Daily Value not established.

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

++Colony Forming Units

**ID# 527030 30 Capsules**
**ID# 527060 60 Capsules**

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