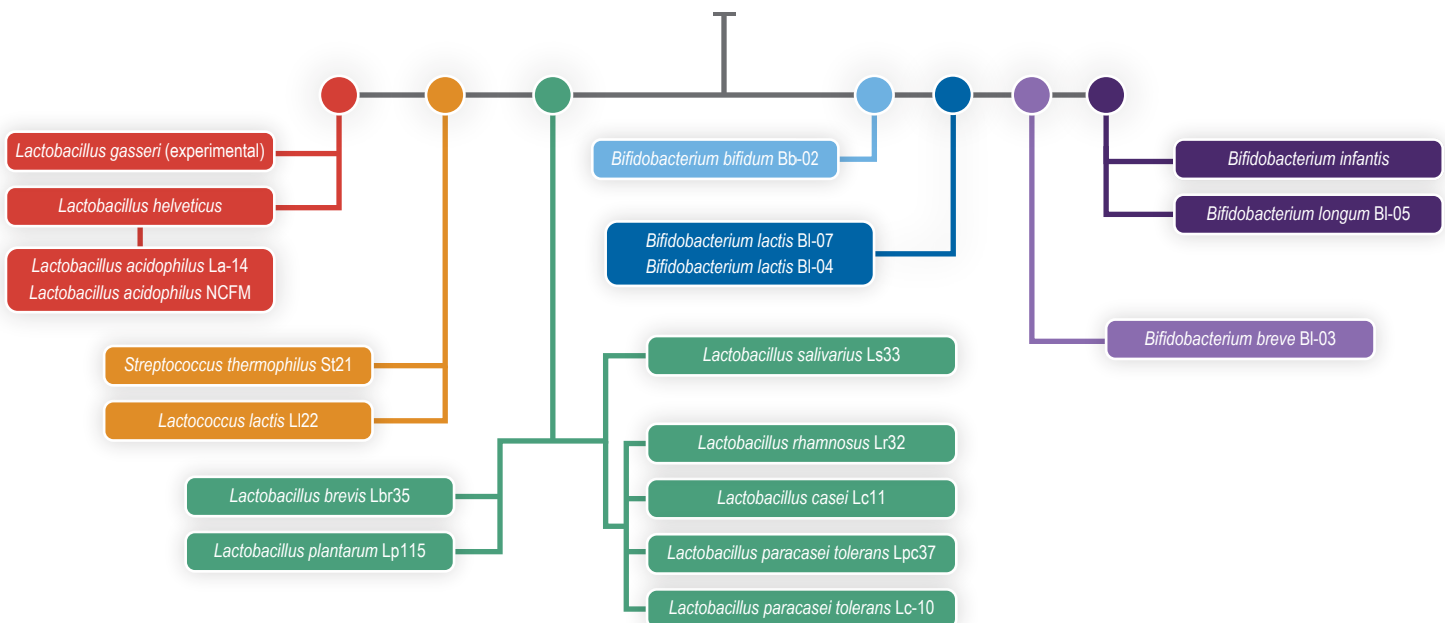


# The Power of Probiotic Diversity

Since the human gastrointestinal (GI) tract contains approximately 500 different subspecies of bacteria, it appears biodiversity and balance are likely more important in the microbiome than the prominence of only a few species. Certain bacterial subspecies are known to reside only in very particular parts of the GI tract based on pH, nutrient concentrations and their ability to bind different cell surfaces. Because of this, probiotic supplementation should be implemented not with single organisms, but with products that provide a broad number of probiotic strains. By using a multi-strain approach, each strain has a slightly different range of metabolic and protective functions, and may occupy a different micro-environmental niche within the GI tract. The multi-strain approach allows robust support for more commensal organisms along the entire GI tract.

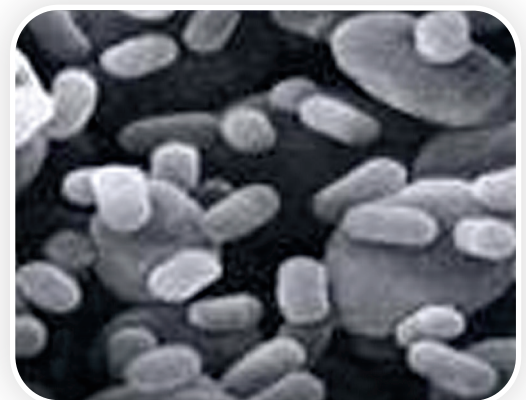
## Probiotic Diversity Spectrum

Selecting strains from each genetically unique group is the ideal way to increase probiotic potential.



## Saccharomyces boulardii: A Different Type of Probiotic

*Saccharomyces boulardii* is a probiotic, health-promoting yeast with remarkable attributes. *S. boulardii* has been shown to restore healthy microbial balance by competing against harmful bacteria and creating an environment that favors the growth of resident lactic acid microflora.<sup>1</sup> Pathogen adherent microflora (PAMs) are probiotics that bind and eliminate pathogens during normal probiotic transit.<sup>2</sup> *S. boulardii* is an ideal PAM because it attracts pathogens to the mannose component of its cell wall. Research has proven this mechanism binds pathogenic bacteria preventing adhesion of these pathogens to the intestinal cells.<sup>3</sup> In addition, because it is a probiotic yeast, *S. boulardii* is not susceptible to antibiotics, making it a great addition to any multi-strain probiotic combination.



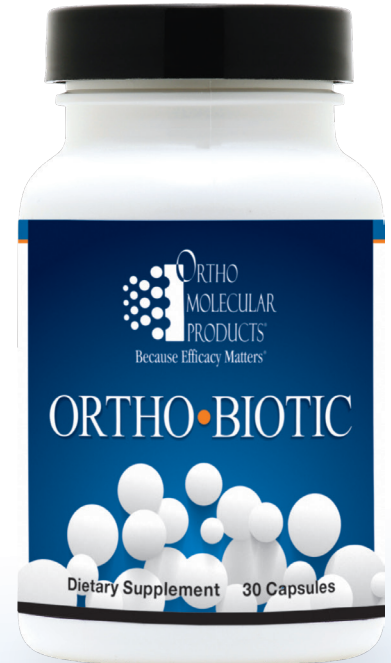
Gedek, BR. Adherence of *Escherichia coli* serogroup O 157 and the *Salmonella typhimurium* mutant DT 104 to the surface of *Saccharomyces boulardii*. *Mycoses*. 1999; 42(4):261-264


1. Buts JP, Corthier G, Delmee M. *Saccharomyces boulardii* for *Clostridium difficile*-associated enteropathies in infants. *J Ped Gastroenterol Nutr*. 1993 May;16(4):419-25.
2. Czerucka D, Piche T, Rampal P. Review article: yeast as probiotics—*Saccharomyces boulardii*. *Aliment Pharmacol Ther*. 2007 Sep;26(6):767-78.
3. Gedek, BR. Adherence of *Escherichia coli* serogroup O 157 and the *Salmonella typhimurium* mutant DT 104 to the surface of *Saccharomyces boulardii*. *Mycoses*. 1999; 42(4):261-264

# Ortho Biotic

## The Broad-Spectrum Probiotic Advantage

Ortho Biotic is a broad-spectrum probiotic blend designed to deliver live microorganisms to promote healthy gut flora, protect mucosal integrity, and support the GI tract. Ortho Biotic includes *Saccharomyces boulardii*, an extensively researched microorganism shown to increase secretory IgA (sIgA), an antibody critical for maintaining and restoring microflora balance.<sup>4</sup> In addition, BioShield® advanced encapsulation technology ensures live cultures are delivered intact and on-target in the intestinal tract for maximum benefit. Each Ortho Biotic capsule provides seven proven probiotic strains to help reduce occasional constipation, diarrhea, gas and bloating. Ortho Biotic is formulated for maximum potency at room temperature storage and provides guaranteed potency at expiration.



SUPER <sup>7</sup>	Strain Benefits
<i>Lactobacillus acidophilus</i>	<ul style="list-style-type: none"> <li>Protects human epithelial cells from invasion of <i>E. coli</i></li> <li>Increases the absorption and bioavailability of minerals</li> <li>Produces lactic acid to fight invading microbes</li> </ul>
<i>Lactobacillus paracasei</i>	<ul style="list-style-type: none"> <li>Supports the immune system by increasing T-helper cell production*</li> </ul>
<i>Bifidobacterium lactis</i>	<ul style="list-style-type: none"> <li>Reduces intestinal permeability*</li> </ul>
<i>Bifidobacterium bifidum</i>	<ul style="list-style-type: none"> <li>High tolerance against stomach acids</li> <li>Effectively obstructs <i>E. coli</i> and <i>Staphylococcus aureus</i> adhesion</li> <li>Protects the body from harmful organisms</li> <li>Promotes Th1/Th2-mediated immune balance‡</li> </ul>
<i>Lactobacillus plantarum</i>	<ul style="list-style-type: none"> <li>Enhances microflora balance and inhibits pathogen adherence</li> </ul>
<i>Lactobacillus rhamnosus</i>	<ul style="list-style-type: none"> <li>Inhibits the adhesion of <i>Salmonella typhimurium</i> to Caco-2 cells via a pH effect*</li> </ul>
 <i>Saccharomyces boulardii</i>	<ul style="list-style-type: none"> <li>Competes and displaces pathogenic bacteria to protect the GI lining</li> <li>Decreases incidence of occasional diarrhea and increases sIgA production favoring commensal lactic acid bacteria</li> </ul>

\**In vitro*  
‡*Animal model*

### Supplement Facts

Serving Size 1 Capsule  
Servings Per Container 30, 60

1 capsule contains	Amount Per Serving	% Daily Value
<b>Proprietary Blend</b>	20 Billion CFU**	
Lactobacillus acidophilus		*
Lactobacillus paracasei		*
Bifidobacterium lactis		*
Bifidobacterium bifidum		*
Lactobacillus plantarum		*
Lactobacillus rhamnosus		*
Saccharomyces boulardii	2 Billion CFU**	*

\* Daily Value not established

\*\* Colony Forming Units

Ortho Biotic Capsules

ID# 527030 30 Capsules

ID# 527060 60 Capsules

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



### Potent

Manufactured for maximum freshness, delivering superior potency for enhanced GI and immune support



### Diverse

A broad-spectrum blend of proven strains, scientifically selected for resilience, endurance and effectiveness



### Targeted

BioShield® encapsulation technology ensures live cultures are delivered intact and on-target

4. Buts JP, Bernasconi P, Vaerman JP, Dive C. Stimulation of secretory IgA and secretory component of immunoglobulins in small intestine of rats treated with *Saccharomyces boulardii*. Digest Dis Sci. 1990 Feb;35(2):251-6.

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.

LT-SLSH-039 02112016



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