

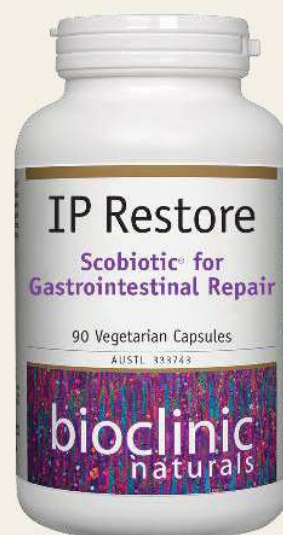
IP Restore

Scobiotic™ for Gastrointestinal Repair

Available in 90 vegetarian capsules

IP Restore is a Scobiotic™ formulated to support the repair of impaired gastrointestinal epithelial permeability and ameliorate associated intestinal inflammation. The mixed culture of bacteria, fungi and yeasts provides significant prebiotic activity with probiotic and nutritional support to promote the growth and adhesion of beneficial microflora that specifically facilitate gut repair processes and support healthy gastrointestinal system function and nutrient absorption.

- Unique Scobiotic™ syntrophic mixed culture of bacteria, fungi and yeasts that targets the underlying causes and associated symptoms of impaired gastrointestinal permeability.
- Prebiotics specific for promoting healthy *bifidobacteria* and *lactobacilli* balance.
- Soothes, repairs and strengthens the gastrointestinal epithelial lining and promotes beneficial bacterial adherence to the intestinal mucosa.
- Features *Lactobacillus gasseri* and *Lactobacillus plantarum* to help support the integrity of the gastrointestinal lining.
- Contains 5 species of beneficial mushrooms and Wellmune® for gastrointestinal immune health.
- Features high mineral yeasts and spirulina for nutritional support and maintenance of gastrointestinal health.
- Includes world-renowned Gnosis Biootic® *Saccharomyces boulardii* as an anti-inflammatory and to help support the health of the intestinal mucosa.
- Features glutamic acid to help support digestive gastric hydrochloric acid secretion and support healthy digestion.
- Contains chicory as a prebiotic and to assist natural detoxification.
- Shelf stable.



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Active Ingredients

Each capsule contains:

<i>Lactobacillus gasseri</i>	0.67 billion CFU	High chromium yeast	8.33 mg
<i>Lactobacillus plantarum</i>	0.67 billion CFU	Equivalent to chromium	16.66 micrograms
Reishi (<i>Ganoderma lucidum</i>)	83.33 mg	High molybdenum yeast	10.42 mg
Zhu ling (<i>Polyporus umbellatus</i>)	16.67 mg	Equivalent to molybdenum	20.83 micrograms
Maitake (<i>Grifola frondosa</i>)	66.67 mg	Bitter candytuft (<i>Iberis amara</i>) extract	33.30 mg
Caterpillar mushroom (<i>Cordyceps sinensis</i>)	50 mg	Equivalent to dry flower and fruit	333 mg
Shiitake (<i>Lentinula edodes</i>)	50 mg	Glutamic acid	16.67 mg
<i>Saccharomyces cerevisiae</i> (<i>boulardii</i>)	16.67 mg	Glutamic acid hydrochloride	16.67 mg
<i>Saccharomyces cerevisiae</i> (Wellmune®)	47.62 mg	Chicory (<i>Cichorium intybus</i>)	44.44 mg
Equivalent to fresh <i>Saccharomyces cerevisiae</i>	232 mg	Spirulina (<i>Arthrospira platensis</i>)	33.33 mg

Product Summary

IP Restore is a Scobiotic™ that provides a syntrophic mixed culture of beneficial bacteria, fungi and yeasts that work synergistically to target the underlying causes of impaired gastrointestinal permeability and consequently ameliorate associated intestinal inflammation and digestive symptoms. The prebiotic-dominant formula, with probiotic and nutritional support; promotes healthy beneficial bacterial balance and adhesion, immune system activity and repairs and strengthens the gastrointestinal epithelial lining. This helps reduce associated digestive symptoms and enhances general gastrointestinal health and wellbeing.

Clinical Evidence:

The gastrointestinal mucosal epithelium is a single layer of cells connected by intercellular junctions that is vital for regulating intestinal digestion, absorption and neuroendocrine processes to enable optimal gastrointestinal health and function.¹ This semi-permeable barrier is also integral for protecting against the absorption of potentially harmful antigens from the intestinal lumen, thereby regulating immune balance and tolerance and local and systemic inflammation.²

The intercellular junctions that connect these epithelial cells are called tight junctions (TJs), comprised of proteins including occludin, claudins, junctional adhesion molecules, ZO-1, ZO-2, ZO3, 7H6, symplekin and cingulin.¹ The assembly or structure of these proteins (i.e. the opening and closing mechanisms) determine the size of the molecules that can be absorbed through the intestines. These TJs have a dynamic nature, in that their structure and therefore function can be altered by a range of endogenous and exogenous stimuli including dietary intake, increased age, stress, inflammation, metabolic glucose imbalances, bacterial endotoxins and dysbiosis. Consequently, TJ dysfunction is a key underlying process causing impaired intestinal permeability.^{1,3}

A significant range of gastrointestinal and systemic symptoms and conditions are associated with impaired intestinal permeability, including many digestive symptoms, reduced nutrient absorption, impaired immunity, autoimmune issues, non-alcoholic fatty liver, polycystic ovary syndrome, irritable bowel syndrome,

food allergies or hypersensitivities and reduced capacity for cognitive and physical performance.^{2,3}

The intestinal microbiome plays a key role in mediating and enhancing intestinal barrier integrity and function by regulating mucous composition and influencing TJ expression, structure and function.^{1,4} Consequently, healthy levels of beneficial microflora are essential for promoting and maintaining the integrity of the gastrointestinal epithelial lining and improving impaired gastrointestinal permeability.

The syntrophic combination of probiotics with prebiotic fungi and yeasts in IP Restore provide a significant range of therapeutic mechanisms that support gastrointestinal permeability integrity and beneficial microflora balance.

Lactobacillus gasseri supports and protects intestinal barrier function by inhibiting small bowel cytokine-induced permeability. It also increases IgA production in the small intestinal Peyer's patch, lamina propria and B-cells, with significant antimicrobial activity against Gram-positive and Gram-negative bacteria. *Lactobacillus gasseri* also adheres to intestinal tissue and promotes faecal lactobacilli concentrations.⁵⁻⁸ *Lactobacillus plantarum* influences TJ transcription pathway expression, upregulates intestinal mucin production and shifts mucosal cell energy supply from oxidative phosphorylation to glutamine by modulating the transcription of glutamine biosynthesis pathways.^{9,10} This strain also promotes and protects intestinal barrier integrity and health by preventing the adherence of pathogens to the intestinal mucosa and modulating the *lactobacilli* microbiota composition.^{10,11}

The fungi and yeast prebiotics also exhibit a broad range of mechanisms that support gastrointestinal barrier integrity and function.

Reishi (*Ganoderma lucidum*) has significant prebiotic activity, promoting intestinal *bifidobacterium* and *lactobacilli* composition, and has immune modulatory effects by stimulating SIgA synthesis.¹¹⁻¹⁵ Maitake (*Grifola frondosa*), caterpillar mushroom (*Cordyceps sinensis*) and zhu ling (*Polyporus umbellatus*) also have immune modulatory effects, the latter also influencing the intestinal microbiome.^{14,16-19} Shiitake (*Lentinula edodes*) modulates mucosal immunity

by increasing intestinal SIgA production, inhibits intestinal inflammation, supports healthy microbial populations via prebiotic activity and gut barrier integrity.²⁰⁻²⁵ Chicory provides prebiotic, anti-inflammatory, antimicrobial and antioxidant support of the gastrointestinal tract. It also increases colonic absorption of dietary minerals (calcium and magnesium).²⁶⁻²⁹

Saccharomyces cerevisiae and *Saccharomyces boulardii* protect epithelial barrier function via a number of mechanisms, including inhibition of pathogenic adhesion and colonisation of the intestinal mucosa. They also modulate intestinal microflora and metabolic activity, and have trophic, immune (i.e. promoting SIgA synthesis) and anti-inflammatory effects on the intestinal mucosa. *Saccharomyces boulardii* is particularly known to inhibit the adhesion of *Candida albicans* and therefore its colonisation.³⁰⁻³⁵

Gnosis Bioitic® *Saccharomyces boulardii* is a world-renowned and high-quality strain of this beneficial yeast. It is obtained through a proprietary patented process based on less aggressive drying at controlled temperatures and lower vacuum, allowing the preservation of whole yeast cells and the water content to be unchanged over time. This provides greater stability and delays the yeast ageing processes including cell deterioration as well as decreasing the likelihood of product contamination. It is also resistant to stomach acid and all commonly used antibiotics.

As an essential energy source for intestinal epithelial cells, glutamine fortifies the epithelial mucosal barrier by influencing TJ protein expression. Glutamine also promotes naive T-cells towards T-regulatory cell differentiation, anti-inflammatory activity and supports the survival of probiotics.³⁶⁻³⁸

As a nutrient-dense source of protein, essential fatty acids, vitamins, minerals and phytonutrients, spirulina (*Arthrospira platensis*) provides nutrients for the maintenance of GIT health and for depletion of nutrients associated with suboptimal gastrointestinal barrier function. Other mechanisms that promote a beneficial effect on the gastrointestinal tract include via antioxidant, anti-inflammatory, antimicrobial, antiviral and probiotic-supporting activity.³⁹⁻⁴¹

*References available on request

Directions for use: Adults: 1 capsule 3 times daily or as directed by a health care practitioner.

Warnings: Not to be used in children under 2 years of age without medical advice. If you are pregnant or breastfeeding, talk to your health care practitioner before taking this product. If symptoms persist, worsen, or become more frequent, talk to your health care practitioner. Do not take while on warfarin therapy without medical advice.



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