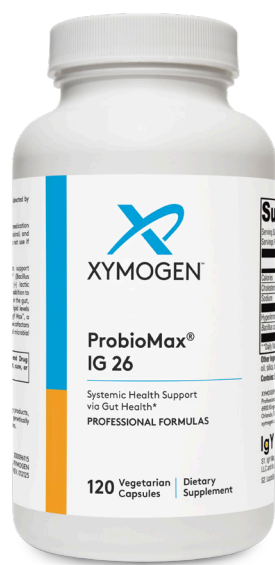


ProbioMax® IG 26

Systemic Support via Gut Health*



Available in 120 vegetarian capsules

Discussion

Diversity of gut microflora is characteristic of a healthy GI microbiome and contributes to overall health and vitality by promoting optimum digestion, assimilation, gut integrity, motility, and efficient removal of toxins and waste. Many internal and external influences, including stress, a poor diet, food sensitivities, medication, environmental factors, and certain disease conditions, can impact the microbial balance within this fine-tuned community. Their impact can allow for potential colonization by pathogenic organisms and disrupt a healthy balance, which can result in adverse effects ranging from GI symptoms to impaired immune response.^[1-3] Probiotics are part of the key to promoting the optimal balance of the microbiome,^[4] whether they originate from dietary sources or from supplements. Providing an increased supply of immunoglobulins also encourages a healthy balance of bacteria in the intestine. Due to the link between gut health and systemic health, supporting immunity through enhancement of a healthy GI microbiome balance promotes overall health.*

LactoSpore® (*Bacillus coagulans* MTCC5856)

Lactic acid-producing bacteria are suggested to play a role in GI microecology. They prevent the growth of non-beneficial microorganisms through competitive inhibition, generation of non-conductive acidic environments, and production of antibiotic-like substances.^[5] *B coagulans* is a unique lactic acid-producing probiotic strain featuring a thermostable spore coating that enables viability throughout shelf life and the ability to survive gastric secretions intact until reaching the gut.^[6] *B coagulans* has a well-documented safety profile.^[7] It received premarket safety approval in Canada in 2014 and has USDA GRAS status. Furthermore, since its market introduction over 20 years ago, extensive research has suggested several beneficial physiological roles for LactoSpore*:

GI Health

Studies have suggested a role for *B coagulans* in improvement of both acute and chronic GI symptoms due to abnormalities in intestinal flora.^{*[8,9]} *B coagulans* is indicated for reducing discomfort of intestinal gas. In a study of adults (n=61) with post-prandial abdominal pain, distention, and flatulence but no GI diagnosis, improvement on a GI symptom rating scale was noted for 10 of 12 variables with significant improvement in three of 12 GI variables.^[10] Additional studies have shown efficacy in the management of GI problems associated with infections or the use of antibiotics.^{*[11,12]}

The effect of *B coagulans* on pain, discomfort, and bloating in patients (n=44) with irritable bowel syndrome (IBS) was evaluated over an eight-week period with statistically significant improvements noted from baseline value using a self-assessment score.^[13] Adding significance to the benefits for use in IBS, a double-blind, placebo-controlled, multicenter trial evaluating the safety and efficacy of LactoSpore in IBS patients (n=36) over a 90-day period suggested that

Clinical Applications

- » Supports a Healthy Balance of Microflora to Promote Digestive Health*
- » Provides Immunoglobulins and Immunoregulating Factors to Promote Systemic Health*
- » Enhances the Integrity of Intestinal Mucosa*

*ProbioMax® IG 26 combines patented ingredients IgY Max® and LactoSpore®. LactoSpore is Bacillus coagulans MTCC5856, a stable L(+) lactic acid-producing, spore-forming probiotic with roles in promoting microbiome balance and maintaining blood lipid levels already within a healthy range. IgY Max is an immunized egg powder, providing polyvalent IgY immunoglobulins to fortify intestinal barrier protection, promote gastrointestinal and immune system health, and support microbiome, mycobiome, and cytokine balance.**

daily supplementation with two billion spores significantly decreased symptoms of vomiting, bloating, diarrhea, abdominal pain, and stool frequency ($P < 0.01$).^[14] This study ultimately resulted in licensure of a Canadian health claim for the use of LactoSpore to address IBS.*

Hyperlipidemia and Vaginal Health

While the evidence base supporting *B coagulans* is most notable for GI health, effects on maintaining blood lipid levels already within a healthy range have been demonstrated.^[15-17] In an open-label fixed-dose trial of 17 patients with hyperlipidemia, a daily regimen of *B coagulans* for 12 weeks suggested a significant reduction in total serum cholesterol and LDL cholesterol. The level of HDL cholesterol was marginally increased with no change in serum triglyceride concentrations noted.^[16] It has also been suggested that *B coagulans* plays a role in the beneficial management of non-specific vaginitis.^{*[18-20]}

IgY Max™ Hyperimmunized Egg Powder

Microbial imbalance occurs when non-beneficial bacteria over-proliferate in the gut, taking up vital nutrients that beneficial flora need to survive.^[21] As an innovative approach to modifying the composition of the microbiome, ProbioMax IG 26 DF combines LactoSpore with IgY Max to help promote the attachment of beneficial flora and address non-beneficial bacteria by imparting passive immunity in the intestinal tract, thus allowing the beneficial flora to thrive.*

Decades ago, immunology researchers began investigating the possible health benefits to humans that could be achieved by the consumption of products from hyperimmunized lactating cows and laying hens.^[22] Agricultural scientists soon discovered that they could simultaneously immunize a single laying hen against multiple human germs. The resulting avian immunoglobulins, known as IgY, are transferred to the egg yolk, paralleling the way human immunoglobulins (IgG) are passed to the placenta. From this discovery, a new functional food was born: the "hyperimmune egg." IgY Max is the result of special hyperimmune egg harvesting and processing techniques that result in a polyvalent, immunoglobulin-rich, dried hyperimmune egg food product that can be consumed as a dietary supplement. Hyperimmune egg provides a concentrated source of environmentally specific IgY antibodies and immune-supporting cofactors that can confer passive immunity to those who consume it.^[22-27] There are over 100 patents associated with the production of hyperimmune egg and its use in animals and humans. Additionally, IgY Max is self-affirmed GRAS—a designation that affirms safe consumption—and it holds a Food Additive Master File number.^{*[28]}

Furthermore, in-vitro, animal, and human studies of hyperimmune egg and IgY have shown that supplemental IgY from hyperimmune egg imparts passive immunity in the intestinal tract.^{*[22,23,27,29-32]}

*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.

XYMOGEN® Professional Formulas
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ProbioMax® IG 26 Supplement Facts

Serving Size: 2 Capsules

	Amount Per Serving	%Daily Value
Calories	5	
Cholesterol	15 mg	5%
Sodium	5 mg	<1%
Immunized egg powder ^{S1}	1 g	**
<i>Bacillus coagulans</i> MTCC5856 ^{S2}	10 mg (1 Billion spores)	**
** Daily Value not established.		

Other Ingredients: Capsule (hypromellose and water), medium-chain triglyceride oil, silica, dicalcium phosphate, and sweet potato maltodextrin.
Contains: Egg.

DIRECTIONS: Take 2 capsules twice daily with cold water, or use as directed by your healthcare professional.

Consult your healthcare professional prior to use. Individuals taking medication should discuss potential interactions with their healthcare professional, and individuals with egg allergies should not consume this product. Do not use if tamper seal is damaged.

STORAGE: Keep closed in a cool, dry place out of reach of children.

FORMULATED TO EXCLUDE: Wheat, gluten, yeast, corn, soy, dairy products, fish, shellfish, peanuts, tree nuts, sesame, ingredients derived from genetically modified organisms (GMOs), artificial colors, and artificial sweeteners.

IgY Max

^{S1} IgY Max is a trademark of IgY Nutrition, LLC and is used under license.



^{S2} LactoSpore® is a registered trademark of Sabinsa Corp.

References

- Heiman ML, Greenway FL. A healthy gastrointestinal microbiome is dependent on dietary diversity. *Mol Metab*. 2016 Mar 5;5(5):317-20. [PMID: 27110483]
- Lloyd-Price J, Abu-Ali G, Huttenhower C. The healthy human microbiome. *Genome Med*. 2016 Apr 27;8(1):51. [PMID: 27122046]
- Xu Z, Knight R. Dietary effects on human gut microbiome diversity. *Br J Nutr*. 2015 Jan;113 Suppl:S1-5. [PMID: 25498959]
- Grimm V, Riedel CU. Manipulation of the microbiota using probiotics. *Adv Exp Med Biol*. 2016;902:109-17. [PMID: 27161354]
- Majeed M, Prakash L. Probiotics for Health and Well-Being. White Paper. East Windsor, NJ: Sabinsa Corporation; 2014.
- Majeed M, Nagabhushanam K, Natarajan S, et al. Evaluation of genetic and phenotypic consistency of *Bacillus coagulans* MTCC 5856: a commercial probiotic strain. *World J Microbiol Biotechnol*. 2016 Apr;32(4):60. [PMID: 26925622]
- Majeed M, Nagabhushanam K, Natarajan S, et al. A double-blind, placebo-controlled, parallel Study evaluating the safety of *Bacillus coagulans* MTCC 5856 in healthy individuals. *J Clin Toxicol*. 2016;6:283:2161-0495. <http://dx.doi.org/10.4172/2161-0495.1000283>.
- Hyronimus B, Le Marrec C, Urdaci MC. Coagulin, a bacteriocin-like inhibitory substances produced by *Bacillus coagulans* I4. *J Appl Microbiol*. 1998 Jul;85(1):42-50. [PMID: 9721655]
- Duc le H, Hong HA, Barbosa TM, et al. Characterization of *Bacillus* probiotics available for human use. *Appl Environ Microbiol*. 2004 Apr;70(4):2161-71. [PMID: 15066809]
- Kalman DS, Schwartz P, Alvarez S, et al. A prospective, randomized, double-blind, placebo-controlled parallel-group dual site trial to evaluate the effects of a *Bacillus coagulans*-based product on functional intestinal gas symptoms. *BMC gastroenterology*. 2009 Nov 18;9:85. [PMID: 19922649]
- Chandra RK. Effect of *Lactobacillus* on the incidence and severity of acute rotavirus diarrhoea in infants. A prospective placebo-controlled double-blind study. *Nutrition research*. 2002 Jan-Feb;22(1-2):65-69. [https://doi.org/10.1016/S0271-5317\(01\)00367-0](https://doi.org/10.1016/S0271-5317(01)00367-0).
- La Rosa M, Bottaro G, Gulino N, et al. Prevention of antibiotic-associated diarrhea with *Lactobacillus* sporegins and fructo-oligosaccharides in children. A multicentric double-blind vs placebo study [in Italian]. *Minerva pediatrica*. 2003 Oct;55(5):447-52. [PMID: 14608267]
- Hun L. *Bacillus coagulans* significantly improved abdominal pain and bloating in patients with IBS. *Postgrad Med*. 2009 Mar;121(2):119-24. [PMID: 19332970]
- Majeed M, Nagabhushanam K, Natarajan S, et al. *Bacillus coagulans* MTCC 5856 supplementation in the management of diarrhea predominant Irritable Bowel Syndrome: a double blind randomized placebo controlled pilot clinical study. *Nutr J*. 2016 Feb 27;15:21. [PMID: 26922379]
- Balliet M, Burke JR. Changes in anthropometric measurements, body composition, blood pressure, lipid profile, and testosterone in patients participating in a low-energy dietary intervention. *J Chiropr Med*. 2013 Mar;12(1):3-14. [PMID: 23997718]
- Mohan JC, Arora R, Khalilullah M. Short term hypolipidemic effects of oral *Lactobacillus sporogenes* therapy in patients with primary dyslipidemias. *Indian Heart J*. 1990 Sep-Oct;42(5):361-4. [PMID: 2086441]
- Mohan JC, Arora R, Khalilullah M. Preliminary observations on effect of *Lactobacillus sporogenes* on serum lipid levels in hypercholesterolemic patients. *Indian J Med Res*. 1990 Dec;92:431-2. [PMID: 2079358]
- Sankholkar PC, Sali M. "Myconip" (Sporlac) vaginal tablets in non-specific vaginitis. Clinical study report from B. J. Medical College, Pune, India. Unpublished. [on file]
- Kale V, Trivedi RV, Wate SP, et al. Development and evaluation of a suppository formulation containing *Lactobacillus* and its application in vaginal diseases. *Ann N Y Acad Sci*. 2005 Nov;1056:359-65. [PMID: 16387701]
- Riaz S, Dover SE, Chikindas ML. Mode of action and safety of lactosporin, a novel antimicrobial protein produced by *Bacillus coagulans* ATCC 7050. *J Appl Microbiol*. 2012 Sep;113(3):714-22. [PMID: 22737982]
- Kamada N, Chen GY, Inohara N, et al. Control of pathogens and pathobionts by the gut microbiota. *Nat Immunol*. 2013 Jul;14(7):685-90. [PMID: 23778796]
- Dean KL. Hyperimmune eggs capture natural immune support. *Altern Complement Ther*. 2000 June;6(3):118-24. http://www.ah-gene.com.tw/pic/digi/71014101140_hug1.pdf. Accessed June 30, 2017.
- Sarker SA, Casswall TH, Juneja LR, et al. Randomized, placebo-controlled, clinical trial of hyperimmunized chicken egg yolk immunoglobulin in children with rotavirus diarrhea. *J Pediatr Gastroenterol Nutr*. 2001 Jan;32(1):19-25. [PMID: 11176319]
- Mine Y, Kovacs-Nolan J. Chicken egg yolk antibodies as therapeutics in enteric infectious disease: a review. *J Med Food*. 2002 Fall;5(3):159-69. [PMID: 12495588]
- Xie YM, Gao S, Wang LY, et al. Therapeutic effect of probiotics and oral IgY as supplementary drugs in the treatment of pediatric rotavirus enteritis: a comparative study [in Chinese]. *Zhongguo Dang Dai Er Ke Za Zhi*. 2013 Nov;15(11):1000-05. [PMID: 24229598]
- Rahman S, Van Nguyen S, Icatto FC Jr, et al. Oral passive IgY-based immunotherapeutics: a novel solution for prevention and treatment of alimentary tract diseases. *Hum Vaccin Immunother*. 2013 May;9(5):1039-48. [PMID: 23319156]
- Rahman S, Higo-Moriguchi K, Htun KW, et al. Randomized placebo-controlled clinical trial of immunoglobulin Y as adjunct to standard supportive therapy for rotavirus-associated diarrhea among pediatric patients. *Vaccine*. 2012 Jun 29;30(31):4661-69. [PMID: 22575165]
- Artis AM. Food and Drug Administration Food Additive Master File 000595. May 17, 1996.
- Fujibayashi T, Nakamura M, Tominaga A, et al. Effects of IgY against *Candida albicans* and *Candida* spp. Adherence and biofilm formation. *Jpn J Infect Dis*. 2009 Sep;62(5):337-42. [PMID: 19762981]
- Ikemori Y, Ohta M, Umeda K, et al. Passive protection of neonatal calves against bovine coronavirus induced diarrhea by administration of egg yolk or colostrum antibody powder. *Vet Microbiol*. 1997 Nov;58(2-4):105-11. [PMID: 9453122]
- Jüngling A, Wiedemann V, Kühmann R, et al. Chicken egg antibodies for prophylaxis and therapy of infectious intestinal diseases. IV. In vitro studies on protective effects against adhesion of enterotoxigenic *Escherichia coli* to isolated enterocytes. *Zentralbl Veterinärmed B*. 1991 Jul;38(5):373-81. [PMID: 1681635]
- Buragohain M, Dhale G, Ghalsasi G, et al. Evaluation of hyperimmune hen egg yolk derived anti-human rotavirus antibodies (anti-hrvig) against rotavirus infection. *World J Vaccines*. 2012;2:73-84. <http://dx.doi.org/10.4236/wjv.2012.22010>. Accessed June 30, 2017.
- Burdette C, Heck M. IG 26 DF: Gut Health Support. Poster presented at: Xymogen Xperience Conference; June 24, 2016; Orlando, FL. <https://www.igynutrition.com/burdette>. Accessed July 1, 2017.

All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

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