

Why HOLISTA Rebalance with GanedenBC30?

GanedenBC30 is a natural probiotic (“beneficial bacteria”) ingredient added to many foods, beverages and supplements to help support digestive and immune health*

GanedenBC30 is...

The trademarked name for the patented strain of probiotic bacteria, *Bacillus coagulans* GB130, 6086 An ingredient in foods, beverages and supplements Safe – It’s NOT a drug – as per our FDA GRAS affirmation Clinically studied and supported by over 20 peer reviewed, published papers Calorie and gluten-free Organic Compliant Kosher and halal A sustainable, naturally occurring, non-GMO ingredient – no “engineering” here Used as an ingredient, ONLY to provide added health benefits to consumers. GanedenBC30 will not change the composition or taste of any product.

What makes GanedenBC30 different from other probiotics?

GanedenBC30 is an EXTREMELY stable probiotic due to the cell’s ability to form a protective spore. Just like plant seeds wait to grow until spring when the temperature and moisture levels are optimal, GanedenBC30 spores wait to germinate and grow until they reach the intestines where the conditions are just right. This protective shell also gives GanedenBC30 the ability to survive harsh manufacturing processes, product shelf life and finally, the journey through the digestive system – most other probiotics just can’t survive these stresses. Bake It. Boil It. Freeze It. Squeeze It. GanedenBC30 survives harsh manufacturing processes most other probiotics don’t. These special characteristics allow GanedenBC30 to be included in everyday products you’re already consuming. From yogurt, oatmeal, muffins and pizza, to instant coffee, tea, milk and orange juice – GanedenBC30 is available around the world, in many popular foods and beverages.

GanedenBC30 may help support your digestive and immune health. And that's just great!

The more we learn about our intricate digestive system, the more we discover how closely tied it is to our overall health. An astounding 70 percent of your immune system is located in your digestive tract; it’s no surprise that research demonstrates that probiotics may boost our immunity. Clearly, probiotics help keep us healthy by more than just aiding digestion. At Ganeden, we take science seriously

We have over 20 peer reviewed studies demonstrating the safety, efficacy and benefits of our signature probiotic strain, GanedenBC30 (Bacillus coagulans GBI-30, 6086). In addition, our on-site, research and development facility is one of the most advanced probiotic technological laboratories in the world. Our dedication to science ensures that you get the most stable, efficacious probiotic products available. GanedenBC30 Research Highlights

SAFETY Ganeden has conducted extensive safety studies on GanedenBC30, which have been published (Endres 2009, Endres2011) and culminated with Ganeden receiving FDA GRAS. These tests prove that even when GanedenBC30 is consumed at much higher levels than what is found in food and beverage products, that there are no safety concerns. FDA GRAS is strain specific, and GanedenBC30 is the only Bacillus that has been granted FDA GRAS status. Safety Assessment Of A Proprietary Preparation Of A Novel Probiotic, Bacillus Coagulans, As A Food Ingredient *Food and Chemical Toxicology*, 2009; 47: 1231–1238 J.R. Endresa, A. Clewella, K.A. Jadea, T. Farberb, J. Hauswirthc A.G. Schausa One-Year Chronic Oral Toxicity With Combined Reproduction Toxicity Study Of A Novel Probiotic, Bacillus Coagulans, As A Food Ingredient

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Food and Chemical Toxicology Article in Press J.R. Endresa, I. Qureshia, T. Farberb, J. Hauswirthc, G. Hirkad, I. Pasicds, A.G. Schausa

DIGESTIVE HEALTH

In multiple studies, GanedenBC30 supports digestive health when consumed daily: 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, 9:85 Douglas S Kalman, Howard I Schwartz, Patricia Alvarez, Samantha Feldman, John C Pezzullo and Diane R Krieger Survival And Metabolic Activity Of The GanedenBC30 Strain Of Bacillus Coagulans In A Dynamic In Vitro Model Of The Stomach And Small Intestine *Beneficial Microbes*, 2010; 1(1): 31–36 A.J.H Maathuis, D. Keller, S. Farmer Impact of GanedenBC30 (Bacillus coagulans GBI-30, 6086) on population dynamics of the human gut microbiota in a continuous culture fermentation system *International Journal of Probiotics and Prebiotics*, 2011, 6 (1): 65–72 Harue Honda, Lesley Hoyles, Glenn R. Gibson, Sean Farmer, David Keller and Anne L. McCartney Use Of A Continuous Culture Fermentation System To Investigate The Effect Of GanedenBC30 Bacillus Coagulans GBI-30, 6086) Supplementation On Pathogen Survival In The Human Gut Microbiota *Anarobe* 2011, 17 (1): 36–42 H. Honda, G.R. Gibson, S. Farmerb, D. Kellerb, A.L. McCartneya Bacillus Coagulans GBI-30 (BC30) improves indices of Clostridium difficile-Induced colitis in mice *Gut Pathogens*, 2011, 3:16 Leo R Fitzpatrick,

Jeffrey S Small, Wallace H Greene, Kelly D Karpa and David Keller Bacillus coagulans GBI-30, 6086 limits the recurrence of Clostridium difficile-Induced colitis following vancomycin withdrawal in mice Gut Pathogens, 2012, 4:13 Leo R Fitzpatrick, Jeffrey S Small, Wallace H Greene, Kelly D Karpa, Sean Farmer and David Keller Bacillus Coagulans Significantly Improved Abdominal Pain And Bloating In Patients With IBS Postgraduate Medicine, 2009; 121(2): 119–124 Larysa Hun Effects Of A Proprietary Bacillus Coagulans Preparation On Symptoms Of Diarrhea–Predominant Irritable Bowel Syndrome Methods Find Exp Clin Pharmacol 2009; 31(10): 655–659 B.J. Dolin

IMMUNE HEALTH

A large majority of the body's immune system is located within the intestines. When GanedenBC30 is consumed daily, it creates a healthier intestinal environment, supporting immune function. Bacillus coagulans GBI-30, 6086 Modulates Faecalibacterium prausnitzii in Older Men and Women The Journal of Nutrition May 2015

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Edna P Nyangale, Sean Farmer, Howard A Cash, David Keller, David Chernoff, and Glenn R Gibson Immunomodulation of Antiretroviral Drug-Suppressed Chronic HIV-1 Infection in an Oral Probiotic DoubleBlind Placebo-Controlled Trial AIDS Research and Human Retroviruses October 2014, 30(10): 988–995. doi:10.1089/aid.2014.0181. Yang Otto O., Kelesidis Theodoros, Cordova Robert, and Khanlou Homayoon GanedenBC30 Cell Wall And Metabolites: Anti-inflammatory And Immune Modulating Effects In vitro BMC Immunology 2010, 11:15 Gitte S Jensen, Kathleen F Benson, Steve G Carter, John R Endres Probiotic metabolites from Bacillus coagulans GanedenBC30 support maturation of antigen-presenting cells in vitro World Journal of Gastroenterology, 2012, 18(16): 1875–1883 Kathleen F Benson, Kimberlee A Redman, Steve G Carter, David Keller, Sean Farmer, John R Endres and Gitte S Jensen A review of probiotics studies in HIV research suggests improved immunological presentation and preservation of viral host restrictive factors of TH17 in HIV patients Retrovirology, 2012, 9(Suppl 1):P22 M Selbovitz, Keller, Miller, Moore, Farmer and Bray A Patented Strain Of Bacillus Coagulans Increased Immune Response To Viral Challenge Postgraduate Medicine, 2009; 121(2): 114–118 Mira Baron A Controlled Clinical Trial To Evaluate The Effect of GanedenBC30 On Immunological Markers Methods and Findings in Experimental and Clinical Pharmacology 2010, 32(2): 129–132 M. Kimmel, D. Keller, S. Farmer, D.E. Warrino

ADDITIONAL BENEFITS

Probiotic Bacillus coagulans GBI-30, 6086 reduces exercise-induced muscle damage and increases recovery PeerJ, July 2016

Ralf Jäger, Kevin A. Shields, Ryan P. Lowery, Eduardo O. De Souza, Jeremy M. Partl, Chase Hollmer, Martin Purpura and Jacob M. Wilson

Effect of prebiotics on the fecal microbiota of elderly volunteers after dietary supplementation of *Bacillus coagulans* GBI-30, 6086 *Anaerobe* Volume 30, December 2014, Pages 75–81 Edna P. Nyangale, Sean Farmer, David Keller, David Chernoff, Glenn R. Gibson *Bacillus coagulans* : A Viable Adjunct Therapy For Relieving Symptoms Of Rheumatoid Arthritis According To A Randomized, Controlled Trial *BMC Complementary and Alternative Medicine* 2010, 10:1 David R Mandel, Katy Eichas, Judith Holmes *Bacillus Coagulans* As A Probiotic *Food Science & Technology Bulletin: Functional Foods* 2010, 7 (7): 103–109 D. Keller, S. Farmer, A.L. McCartney, G. Gibson *1hProbiotics* 101: <https://t.co/5TziVUGseb>

Reference: www.ganedenbc30.com