



P3-OM™

Features *Lactobacillus plantarum* OM 55981, a patented, shelf-stable, proteolytic strain of *L. plantarum* designed to support balanced microbiome composition, optimal digestive function, and healthy immune response*

FEATURES

- Contains *L. plantarum* OM 55981, a patented, biologically pure strain of *L. plantarum* possessing powerful proteolytic activity*
- Helps digest protein-containing protective coating of pathogens including bacterial and fungal cell membranes and viral capsids*
- Aids breakdown of dietary proteins, reducing potential for uncontrolled fermentation within the gut and thereby helping optimize microbiome composition*
- Patented OM 55981 strain survives stomach acid intact to ensure delivery to the small intestine for optimal colonization
- Guaranteed potency of 2.5 billion CFU per capsule with shelf-stable OM 55981 strain; no refrigeration necessary
- Gluten-free, vegan, soy-free formula

BENEFITS

- Helps maintain balanced GI microbiome by supporting colonization of beneficial strains and protecting against opportunistic and pathogenic strains*
- Enhances intestinal barrier integrity by upregulating paracellular proteins at tight junctions*
- Helps support proper immune response by maintaining healthy cytokine balance, IgE activity, and mast cell integrity*
- Helps support healthy intestinal function, regularity and proper elimination*
- Helps reduce occasional gas, bloating and indigestion*
- Promotes digestive proteolysis for enhanced nutrient breakdown and assimilation*

Supplement Facts

Serving Size: 1 Capsule		
Servings Per Container: 60		
	Amount Per Serving	% Daily Value*
Lactobacillus Plantarum OM	250 mg	*
(10,000,000,000 CFU/g, 2,500,000,000 CFU)		
*Percent Daily Value not established.		

OTHER INGREDIENTS: FRUCTOOLIGOSACCHARIDES, STABILIZED RICE BRAN, VEGETABLE CAPSULE (PLANT CELLULOSE AND WATER)

Directions: Take 1-2 capsules with each meal and take 1-2 capsules at night before bed. Store in a cool/dry location.

Form: Veg Caps

Available Sizes: 30/60/120 ct

Item Codes: 2030 (30 ct), 1366 (60 ct), 1367 (120 ct)

U.S. Patent #5895758A



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CLINICAL DISCUSSION

A healthy intestinal microbiome is essential for digesting foods, regulating the immune system, and producing key metabolites. Alterations to the gut microbiome can occur with infection, chronic disease, medications, toxins, stressors, and a poor diet.

Over 40 diseases are associated with gut dysbiosis, including digestive conditions, mood disorders, obesity, diabetes, heart disease, asthma, and eczema.^{1,2} The composition of the gut microbiome has become an important part of the conversation around health and disease prevention. Evidence suggests that a single probiotic species can have numerous mechanisms of action with wide-ranging benefits, and that probiotic effectiveness is species-, dose-, and disease-specific.¹

Lactobacillus plantarum plays a major role in maintaining a healthy microbiome milieu and mucosal barrier. Specifically, it produces bacteriocins that destroy gram-negative pathogenic bacteria.³ It also promotes translocation of tight junction proteins occludin and ZO-1 to reduce intestinal permeability.^{4,5} Additionally, *L. plantarum* plays an important role in regulating mast cells and histamine breakdown.⁶

The clinical benefits of *L. plantarum* are well established. Numerous studies suggest it provides significant symptom relief in IBS, particularly of abdominal pain, bloating, and stool consistency.^{7,8} *L. plantarum* has been shown to lower inflammatory cytokines and CVD markers like LDL, glucose and homocysteine.^{9,10} It's also been demonstrated to improve dermatologic conditions like atopic dermatitis and acne vulgaris.^{11,12} *L. plantarum* has been widely studied for its neurocognitive effects, as well. Several studies have documented the benefits of *L. plantarum* for insomnia, depression, anxiety, and reduced cognition.^{13,14}

REFERENCES

1. Wilkins T, Sequoia J. Probiotics for Gastrointestinal Conditions: A Summary of the Evidence. *Am Fam Physician*. 2017 Aug 1;96(3):170-178.
2. Carding S, Verbeke K, Vipond DT, Corfe BM, Owen LJ. Dysbiosis of the gut microbiota in disease. *Microb Ecol Health Dis*. 2015 Feb 2;26:26191.
3. Heeney DD, Zhai Z, Bendiks Z, Barouei J, Martinic A, Slupsky C, Marco ML. *Lactobacillus plantarum* bacteriocin is associated with intestinal and systemic improvements in diet-induced obese mice and maintains epithelial barrier integrity *in vitro*. *Gut Microbes*. 2019;10(3):382-397.
4. Ahrne S, Hagslatt ML. Effect of lactobacilli on paracellular permeability in the gut. *Nutrients*. 2011 Jan;3(1):104-17.
5. Karczewski J, Troost FJ, Konings I, Dekker J, Kleerebezem M, Brummer RJ, Wells JM. Regulation of human epithelial tight junction proteins by *Lactobacillus plantarum* in vivo and protective effects on the epithelial barrier. *Am J Physiol Gastrointest Liver Physiol*. 2010 Jun;298(6):G851-9.
6. Kung HF, Lee YC, Huang YL, Huang YR, Su YC, Tsai YH. Degradation of Histamine by *Lactobacillus plantarum* Isolated from Miso Products. *J Food Prot*. 2017 Oct;80(10):1682-1688.
7. Ducrotté P, Sawant P, Jayanthi V. Clinical trial: *Lactobacillus plantarum* 299v (DSM 9843) improves symptoms of irritable bowel syndrome. *World J Gastroenterol*. 2012 Aug 14;18(30):4012-8.
8. Jung K, Kim A, Lee JH, Cho D, Seo J, Jung ES, Kang HJ, Roh J, Kim W. Effect of Oral Intake of *Lactiplantibacillus plantarum* APSulloc 331261 (GTB1TM) on Diarrhea-Predominant Irritable Bowel Syndrome: A Randomized, Double-Blind, Placebo-Controlled Study. *Nutrients*. 2022 May 11;14(10):2015.
9. Malik M, Suboc TM, Tyagi S, Salzman N, Wang J, Ying R, Tanner MJ, Kakarla M, Baker JE, Widlansky ME. *Lactobacillus plantarum* 299v Supplementation Improves Vascular Endothelial Function and Reduces Inflammatory Biomarkers in Men With Stable Coronary Artery Disease. *Circ Res*. 2018 Oct 12;123(9):1091-1102.
10. Barreto FM, Colado Simão AN, Morimoto HK, Batisti Lozovoy MA, Dichi I, Helena da Silva Miglironza L. Beneficial effects of *Lactobacillus plantarum* on glycemia and homocysteine levels in postmenopausal women with metabolic syndrome. *Nutrition*. 2014 Jul-Aug;30(7-8):939-42.
11. Fang Z, Lu W, Zhao J, Zhang H, Qian L, Wang Q, Chen W. Probiotics modulate the gut microbiota composition and immune responses in patients with atopic dermatitis: a pilot study. *Eur J Nutr*. 2020 Aug;59(5):2119-2130.
12. Kim MJ, Kim KP, Choi E, Yim JH, Choi C, Yun HS, Ahn HY, Oh JY, Cho Y. Effects of *Lactobacillus plantarum* CJLP55 on Clinical Improvement, Skin Condition and Urine Bacterial Extracellular Vesicles in Patients with Acne Vulgaris: A Randomized, Double-Blind, Placebo-Controlled Study. *Nutrients*. 2021 Apr 19;13(4):1368.
13. Ho YT, Tsai YC, Kuo TBJ, Yang CCH. Effects of *Lactobacillus plantarum* PS128 on Depressive Symptoms and Sleep Quality in Self-Reported Insomniacs: A Randomized, Double-Blind, Placebo-Controlled Pilot Trial. *Nutrients*. 2021 Aug 17;13(8):2820.
14. Chong HX, Yusoff NAA, Hor YY, Lew LC, Jaafar MH, Choi SB, Yusoff MSB, Wahid N, Abdullah MFIL, Zakaria N, Ong KL, Park YH, Liong MT. *Lactobacillus plantarum* DR7 alleviates stress and anxiety in adults: a randomised, double-blind, placebo-controlled study. *Benef Microbes*. 2019 Apr 19;10(4):355-373.