



ADVANCED
ORTHOMOLECULAR RESEARCH

AOR CODE: AOR04146

Premium

Advanced Biotics

\$61.45 CAD

Your Complete Probiotic Solution

- Promotes balanced intestinal microflora
- Enhances healthy digestion and immunity
- Contains seven probiotics clinically studied in humans



Digestive Health

AOR Code	Variant	Price
AOR04146	90 VEGI-CAPS	\$61.45

Details

Humans are full of bacteria (known as microflora) that live naturally and synergistically inside the body. Probiotics are live microorganisms that help to balance the intestinal microflora and promote optimal gut health. Advanced Biotics delivers seven probiotic strains which have been used clinically for over 50 years. For example, *Streptococcus thermophiles* absorbs cholesterol which lowers total cholesterol, while *Bifidobacterium longum* balances the immune system to help manage allergies, and also helps to prevent DNA damage, thereby reducing the risk of cancer. The other strains found in Advanced Biotics improve digestion, reduce inflammation, and block harmful bacteria from colonizing the gastrointestinal tract. They have also been shown to enhance immune function, which is closely associated with gut health. They do so in a number of different ways, from reducing infections to reducing seasonal allergy symptoms to protecting against toxins and carcinogens.

Those who have taken antibiotics, people who suffer from various infections of the digestive tract, ranging from the stomach to the urinary tract, those with intestinal issues, or those looking to boost their immunity can benefit from Advanced Biotics.

Label Info

Discussion

AOR's Advanced Biotics formula contains a blend of seven clinically tested probiotics that promote favourable gut flora and support gastrointestinal health.

Product Variation

Product Code	Size
AOR04146	90 VEGI-CAPS

Supplements Facts

Serving Size: 1 Capsule	Amount	% Daily
Bifidobacterium longum BB536	4,000,000,000 CFU†	
Streptococcus thermophilus R0083	2,500,000,000 CFU†	
Lactobacillus acidophilus R0418	3,750,000,000 CFU†	
Lactobacillus rhamnosus R11	3,750,000,000 CFU†	
Lactobacillus casei R215	2,500,000,000 CFU†	
Lactobacillus gasseri LAC343	625,000,000 CFU†	
Lactobacillus plantarum R1012	3,750,000,000 CFU†	

†Colony-forming units.

Non-medicinal ingredients: starch (tapioca and corn), tricalcium phosphate, partially hydrolyzed guar gum, ascorbyl palmitate, maltodextrin, ascorbic acid, sodium stearyl fumarate. Capsule: hypromellose.

Store in a cool, dry place; Refrigerate after opening.

Guarantees

AOR™ guarantees that all ingredients have been declared on the label. Contains no wheat, nuts, peanuts, sesame seeds, sulphites, mustard or eggs.

Adult Dosage

Take 1 capsule one to four times daily and at least 2-3 hours before or after taking antibiotics.

Cautions

Consult a health care practitioner prior to use if you have fever, vomiting, bloody diarrhea or severe abdominal pain. Discontinue use and consult a health care practitioner if symptoms of digestive upset (e.g. diarrhea) occur, worsen, or persist beyond 3 days. Do not use if you have an immune-compromised condition (e.g. AIDS, lymphoma, patients undergoing long-term corticosteroid treatment). This product has come into contact with gluten, soy, dairy and fish; do not use if you have such allergies.

Source

Live bacterial cultures

Main Application

Diarrhea

Yeast infection

Irritable bowel syndrome

Inflammatory bowel disease

Antibiotic related diarrhea

Autoimmune diseases

Atopic dermatitis

Allergies

Disclaimer

The information and product descriptions appearing on this website are for information purposes only, and are not intended to provide or replace medical advice to individuals from a qualified health care professional. Consult with your physician if you have any health concerns, and before initiating any new diet, exercise, supplement, or other lifestyle changes.

Research

Background

AOR's Advanced Biotics™ formula contains a blend of seven clinically tested probiotic strains that possess antimicrobial, immunomodulatory, anticarcinogenic, antidiarrheal and antiallergenic properties. Various strains of these bacteria are frequently used as starter cultures in the production of yogurt, fermented milk and cheese, and other naturally cultured food products.

Probiotics are live microorganisms that promote a balanced intestinal microflora and a healthy gastrointestinal tract. The health benefits associated with probiotic supplementation continue to surface. We all know that the wrong bacteria or the presence of bacteria in places where they should be absent can make us sick. However, we must realize that the right bacteria are essential to our health. It has been shown that there are more bacteria in our intestines than there are cells in our body. It stands to reason that having a healthy gastrointestinal microflora is essential to health. It should come as no surprise that the latest research shows that probiotics can help to mobilize and normalize the immune system, can prevent DNA damage thereby promoting normal cellular growth, prevents infections, reduces the incidence of diarrhea associated with the use of antibiotics, reduce cholesterol levels, and of course improves intestinal habits in healthy adults.

Research

Streptococcus thermophilus

S. thermophilus is a powerful probiotic. The bacterium has been isolated from human feces after oral consumption suggesting that it can survive transit through the gastrointestinal tract. Recent studies show that the bacterium survives the presence of bile salts and absorbs cholesterol, lowering total

cholesterol – absorbing more LDL than HDL cholesterol and therefore advantageously targeting the «bad cholesterol». In animal trials, *S. thermophilus* positively affected intestinal function and offered protection against enteroinvasive *E. coli*, a pathogenic bacteria. This effect was mediated through the enhancement of the intestinal mucosal immunity.

Bifidobacterium longum BB536

This Bifidobacterium has been shown to reduce the symptoms and disturbances associated with seasonal allergies in Japan, normalized the immune system and prevented antigen-induced Th2 immune responses in animal studies. The Th2 immune response is mediated by antibodies and is associated with allergies. Studies have also demonstrated that the bacterium prevents DNA damage induced by heterocyclic aromatic amines (HCA) present in food such as beef mix and barbecued meats.

L. acidophilus R-52

This strain of probiotics used in conjunction with the *L. rhamnosus* R-11 strain reduced bacterial colonization and gastric inflammation in mice infected with *H. pylori*. In animals subjected to chronic stress, it was found that the same two bacteria prevent intestinal abnormalities such as bacterial invasiveness and translocation to lymph nodes. Given with *S. thermophilus*, the bacteria enhanced the immune response and the weight of the colon in animals that underwent intestinal surgery. The bacterium is a common and naturally present bacterium in the vagina. Recent studies confirm that *L. acidophilus* R-52, *L. helveticus* and *L. suntoryeus* are synonymous.

L. rhamnosus R-11

In a study conducted at Acadia University in Nova Scotia, this strain of bacteria was shown to have the most extensive effects on cytokine production in human intestinal mucosal cell lines. It was concluded that the *L. rhamnosus* bacteria had the potential to influence the immune response to pathogens and other antigens through its profound impact on the mucosal environment.

L. casei R-215

This lactic acid producing bacteria is known for its ability to colonize the gastrointestinal tract. Studies have shown that supplementation reduces the colonization of the gastrointestinal tract by *Candida* species and other pathogens.

L. gasseri

Also shown to survive transit through the gastrointestinal tract, this species of lactobacillus possesses immunomodulatory effects. A randomized, double-blind, placebo-controlled human clinical trial using *L. gasseri* and *L. coryniformis* showed that the probiotic combo increased the proportion of phagocytic cells such as monocytes and neutrophils, two types of white blood cells. The probiotics also increase the proportion of natural killer cells and IgA concentrations and improved intestinal habits in healthy adults. This effect was seen after two weeks of treatment but was greater after 4 weeks of supplementation. In animals, *L. gasseri* reduced the growth of pathogenic bacteria such as *Staphylococcus aureus*.

In a study of 531 females, *L. gasseri* was one of three prevalent lactobacilli colonizing the rectum of

290 females. The study concluded that the presence of lactobacillus species in the rectum contributed to the maintenance of the vaginal microflora and decreased the risk of bacterial vaginosis. The presence of hydrogen peroxide producing lactobacilli probiotics in the vagina protects women against infections which lead to the production of proinflammatory molecules that are significant to the etiology of preterm birth.

L. plantarum R-1012

Studies show that some strains of L. plantarum bacteria prevent the adhesion of intestinal pathogens, making the bacteria a promising candidate for probiotic supplementation. Other studies demonstrate that the bacterium lowers cholesterol levels, but most importantly, L. plantarum helps to balance the immune system and improves the Th1:Th2 ratio in healthy adults.

Market Trends

Probiotics are a common supplement these days. However it is important to take a synergistic and comprehensive formula containing healthy bacteria that will work naturally in your body in order to increase the levels of healthy bacteria in your intestinal tract.

Probiotic products on the market: The Facts!

- All probiotic products are NOT created equal and many do not offer the stated health benefits.
- Over 99% of the products on the market have never been clinically studied and make unproven claims!
- Most formulas are based on guess work, and designed simply provide the greatest number of different strains in the highest number per capsule in an attempt to impress the consumer. Do not be fooled by the concept that more is better. The reason that most companies put in such large colony numbers is because they have no clinical data showing that the strains are compatible, will survive or will produce any effect. In essence they are hoping that by incorporating such high amounts at least some will end up surviving. Do not be fooled!
- Some combinations have no history of use and may be antagonistic to each other and may even alter the gut flora in an undesirable way.

AOR Advantage

The probiotic cultures offered in this formula are clinically proven to work together in a synergistic manner in order to produce optimal health benefits.

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Abstract

Influence of Bifidobacterium longum BB536 intake on faecal microbiota in individuals with Japanese cedar pollinosis during the pollen season.

J Med Microbiol. 2007 Oct;56(Pt 10):1301-8.

Odamaki T, Xiao JZ, Iwabuchi N, Sakamoto M, Takahashi N, Kondo S, Miyaji K, Iwatsuki K, Togashi H, Enomoto T, Benno Y.

It has been reported that intake of yogurt or powder supplemented with the Bifidobacterium longum BB536 probiotic strain alleviated subjective symptoms and affected blood markers of allergy in individuals with Japanese cedar pollinosis (JCPsis) during the pollen seasons of 2004 and 2005, based on randomized, double-blind, placebo-controlled trials. Furthermore, the 2004 study found that intestinal bacteria such as the Bacteroides fragilis group significantly fluctuated during the pollen season in JCPsis individuals and intake of BB536 yogurt tended to suppress these fluctuations. The present study investigated faecal microbiota to examine whether any changes occurred during the pollen season and whether any influence was exerted by intake of BB536 powder in the 2005 pollen season, which happened to be a heavy season, to confirm the 2004 findings and to evaluate the relationship of microbiota with symptom development. In a randomized, double-blind, placebo-controlled trial, 44 JCPsis subjects received BB536 or a placebo for 13 weeks during the pollen season. Another 14 Japanese cedar pollen (JCP)-specific IgE negative healthy subjects received placebo for the same period. Faecal samples were collected before (week 0), during (weeks 4, 8 and 13) and after (week 17) intervention, and out of JCP season (week 28). Faecal microbiota were analysed using terminal-RFLP (T-RFLP) and real-time PCR methods. Principal component analysis based on T-RFLP indicated distinct patterns of microbiota between healthy subjects and JCPsis subjects in the placebo group, but an intermediate pattern in the BB536 group at week 13, the last stage of the pollen season. The coordinate of principal component 1 at week 13 correlated with composite scores of JCPsis symptoms recorded during the pollen season. Faecalibacterium prausnitzii and the Bacteroides fragilis group were identified as the main contributors to microbial fluctuations. Real-time PCR indicated that BB536 intake suppressed increases in the Bacteroides fragilis group compared with the placebo group. These results suggest that faecal microbiota in JCPsis subjects, but not healthy subjects, fluctuate at the end of the pollen season and that BB536 intake plays a role in maintaining normal microbiota

The effect of a multispecies probiotic mixture on the symptoms and fecal microbiota in diarrhea-dominant irritable bowel syndrome: a randomized, double-blind, placebo-controlled trial.

J Clin Gastroenterol. 2012 Mar;46(3):220-7.

Ki Cha B, Mun Jung S, Hwan Choi C, Song ID, Woong Lee H, Joon Kim H, Hyuk J, Kyung Chang S, Kim K, Chung WS, Seo JG.

BACKGROUND: The clinical effect of probiotics on irritable bowel syndrome (IBS) is still controversial.

AIMS: We aimed to evaluate the effects of a probiotic mixture on IBS symptoms and the composition of fecal microbiota in patients with diarrhea-dominant IBS (D-IBS).

METHODS: Fifty patients with D-IBS were randomized into placebo or probiotic mixture (*Lactobacillus acidophilus*, *Lactobacillus plantarum*, *Lactobacillus rhamnosus*, *Bifidobacterium breve*, *Bifidobacterium lactis*, *Bifidobacterium longum*, and *Streptococcus thermophilus* 1.0×10^{10} CFU) groups. Treatment was taken daily for 8 weeks. The primary outcome was adequate relief (AR) of overall IBS symptoms, which was assessed weekly for 10 weeks. A responder was defined as a patient who experienced AR for at least half of the 10-week study period. Secondary outcomes included the effects on individual symptoms, stool parameters, and IBS quality of life. The fecal flora compositions were analyzed by polymerase chain reaction denaturing gradient gel electrophoresis (DGGE).

RESULTS: The proportion of AR was consistently higher in the probiotics group than in the placebo group throughout the 10-week period ($P < 0.05$). The proportion of responders was significantly higher in the probiotics group than in the placebo group (48% vs. 12%, $P=0.01$). Stool consistency improved significantly in the probiotics group compared with the placebo group. Percent changes in individual symptom scores were similar in the 2 groups, but IBS quality of life improvement tended to be higher in the probiotics group. Comparison of denaturing gradient gel electrophoresis profiles of fecal flora showed that the concordance rate between bacterial compositions before and after treatment was significantly higher in the probiotics group than in the placebo group (69.5% vs. 56.5%, $P=0.005$).

CONCLUSIONS: The probiotic mixture was effective in providing AR of overall IBS symptoms and improvement of stool consistency in D-IBS patients, although it had no significant effect on individual symptoms. The therapeutic effect of probiotics is associated with the stabilization of intestinal microbiota.

Prevention of antibiotic-associated diarrhoea by a fermented probiotic milk drink.

European Journal of Clinical Nutrition (2008) 62, 299–301.

Wenus C, Goll R, Loken EB, Biong AS, Halvorsen DS and Florholmen J.

OBJECTIVE: To study the preventive effect of a milk drink fermented with multistrain probiotics on antibiotic associated diarrhoea (AAD). **DESIGN:** Double-blind placebo controlled study.

SETTING: University Hospital of North Norway.

SUBJECTS AND METHODS: Of 853 patients treated with antibiotics, 87 met the inclusion criteria, and were randomized to ingestion of a fermented milk drink containing LGG, La-5 and Bb-12 ($n=46$) or placebo with heat-killed bacteria ($n=41$), during a period of 14 days. A diary was recorded, and stool samples were collected for microbiological analyses.

RESULTS: Sixty-three patients completed the study according to the protocol; two patients (5.9%) in the treatment group and eight (27.6%) in the placebo group developed AAD ($P=0.035$). The relative

risk of developing AAD was 0.21 (95% confidence interval: 0.05–0.93) when given probiotic milk drink.

CONCLUSION: A fermented multistrain probiotic milk drink may prevent four of five cases of AAD in adult hospitalized patients.

Diet and chronic constipation. Benefits of oral supplementation with symbiotic zir fos (Bifidobacterium longum W11 FOS Actilight).

Acta Biomed. 2006 Dec;77(3):157-62.

Amenta M, Cascio MT, Di Fiore P, Venturini I.

BACKGROUND AND AIM: Constipation is one of the most common disorders in Western countries and it is known that dietary factors such as a low fiber diet and low caloric intake are associated with this condition. Weight loss can disrupt the intestinal ecosystem resulting in intestinal dysbiosis that worsens constipation. The aim of this study was to evaluate the effects of treatment with symbiotic zir fos (Bifidobacterium longum W11 FOS Actilight) on chronic constipation in patients undergoing a weight loss diet.

METHODS: Our evaluation included the recording of age, gender, weight, height, BMI, physical activity, constipation, diet, therapy compliance and laxative supplies. A hypocaloric diet (1,200/1,400 cal.) was prescribed to all patients, and they were submitted to a physical activity program and received 1 bag of symbiotic zir fos per day for the entire duration of the study. Patients' follow-up was available for up to 60 days.

RESULTS: Two hundred and ninety seven patients (79.4% women and 18.2% men, mean age 32.2) were included in the study. The mean baseline BMI was 33.4 +/- 5.6 (range 22.8-56.3 Kg). The improvement of constipation turned out to be associated to age ($p < 0.01$). Patients with a mean age of 35 +/- 12 showed an improvement of constipation. BMI values were not significantly different among the groups of patients with improved, worsened or unchanged constipation. No significant difference was observed among groups due to physical activity. At the follow-up, after 20 days from the beginning of the study, patients that assumed at least 17/20 of the zir fos bags showed a greater improvement of constipation ($p < 0.01$) than the remaining patients who assumed less than 17/20 of the zir fos bags or that didn't assumed any at all. Patients that assumed laxatives (at least once a week) showedn to be more frequently associated with a worsening of constipation ($p < 0.001$). Diet compliance does not seem to influence the course of constipation.

CONCLUSION: Our data demonstrate the utility of symbiotics in improving constipation during hypocaloric diet in the treatment of obesity.

Lactobacillus acidophilus modulates intestinal pain and induces opioid and cannabinoid receptors.

Nature Medicine. 2007 Jan;14(1):35-37.

Rousseaux C, Thuru¹ X, Gelot A, Barnich N, Neut¹ C, Dubuquoy¹ L, Dubuquoy C, Merour¹ E, Geboes K, Chamillard M, Ouwehand A, Leyer G, Carcano D, Colombel¹ JF, Ardid D & Desreumaux P.

Abdominal pain is common in the general population and, in patients with irritable bowel syndrome, is attributed to visceral hypersensitivity. We found that oral administration of specific *Lactobacillus* strains induced the expression of μ -opioid and cannabinoid receptors in intestinal epithelial cells, and mediated analgesic functions in the gut—similar to the effects of morphine. These results suggest that the microbiology of the intestinal tract influences our visceral perception, and suggest new approaches for the treatment of abdominal pain and irritable bowel syndrome.