

Metabolic Superfood

GLP-1 Support Prebiotic

Alimentum Labs

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GLP-1 Support Prebiotic

Prebiotic blend designed to feed the probiotics in Metabolic μ Biomic to achieve a healthy weight through GLP-1 modulation in L cells, while supporting balanced blood sugar levels.



Metabolism



Gut



Immunity



Whole Body

Health Indications

- Enhance the Growth and Colonization of Metabolic μ Biomic Probiotics
- Natural GLP-1 Support
- Correct Insulin Resistance
- Protect Heart Health
- Regulate Cholesterol Levels
- Support Weight Management
- Manage Appetite
- Encourage a Diverse Gut Microbiome
- Fill Nutritional Gaps

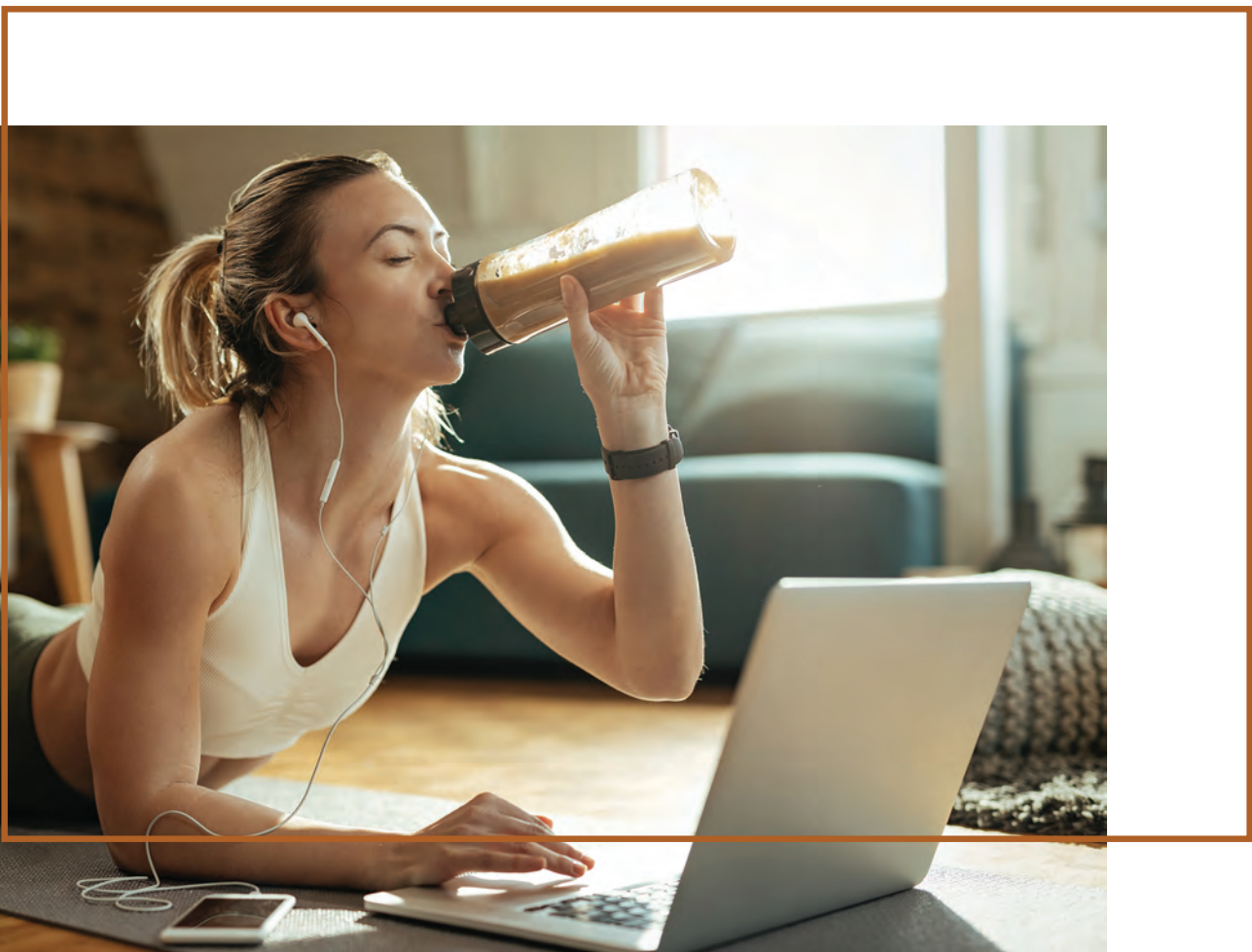
Instructions For Use

Mix 1 scoop into 8-16 oz of your choice of liquid daily, or as directed by your health care provider. It is highly recommended to take Metabolic μ Biomic and Metabolic Superfood together.

**Individual needs may vary; please consult your practitioner before altering the prescribed doses or protocols.

Product Description

Metabolic health is the foundation of vibrant well-being, encompassing how your body transforms food into energy and utilizes it for peak performance. This process involves a delicate balance of key factors: stable blood sugar levels, optimal cholesterol levels, controlled blood pressure, a healthy weight, and efficient energy utilization. When these metabolic processes function harmoniously, you experience sustained energy, improved mood, and a reduced risk of chronic diseases. However, when these intricate metabolic processes are disrupted, metabolic diseases such as type 2 diabetes, obesity, heart disease, and non-alcoholic fatty liver disease, can arise. These conditions are characterized by imbalances in the body's energy metabolism, leading to a cascade of health complications.



Modern lifestyles significantly impact metabolic health. Diets high in processed foods, sugary drinks, and unhealthy fats contribute to obesity, insulin resistance, and type 2 diabetes. The abundance of readily available, calorie-dense foods, combined with the decline in physical activity due to sedentary jobs and increased screen time, further exacerbate these issues. Environmental factors also play a role. Exposure to pollutants, such as air pollution and certain chemicals, can disrupt hormone function and increase the risk of metabolic disorders. Additionally, chronic stress, often linked to modern living, can negatively impact hormonal regulation and contribute to weight gain and metabolic dysfunction.

Alimentum Labs provides tailored prebiotics in the form of a superfood drink to support metabolic health by nurturing a diverse and balanced gut microbiome. These prebiotics act as food for beneficial gut bacteria and were hand selected to support the growth and establishment of the sister product, Metabolic μ Biomic. The next-generation probiotics and prebiotics play crucial roles in various metabolic processes, including targeting GLP-1. A healthy gut microbiome can improve insulin sensitivity, regulate blood sugar levels, enhance fat metabolism, and reduce inflammation, all of which are critical for protecting against modern threats to metabolic health, including obesity, type 2 diabetes, and cardiovascular disease. By prioritizing your metabolic health with Metabolic Superfood, you invest in a healthy, active future.



Key Elements & Features of Metabolic Superfood

Metabolic Health Support

Ingredients like bael fiber, fenugreek fiber, sprout mix, chia seed powder, and acemannan help improve glucose tolerance, insulin sensitivity, and lipid metabolism, reducing the risk of metabolic disorders such as type 2 diabetes, obesity, and cardiovascular diseases.

Gut Microbiome Optimization

Fibers and bioactives such as fenugreek, chitosan, mucin, corn fiber, and pea fiber promote the growth of beneficial gut bacteria, enhance short-chain fatty acid production, and help correct dysbiosis to support digestive and overall health.

Cardiovascular Protection

Components like chia seeds, chondroitin sulfate, cutch tree acacia, and camel milk contribute to lowering cholesterol, reducing oxidative stress, and improving heart function by modulating blood pressure and lipid profiles.

Anti-Inflammatory and Gut Lining Repair

Ingredients like N-acetyl D-glucosamine, marshmallow root, and mucin strengthen the intestinal lining, reduce inflammation, and promote healing, preventing gastrointestinal issues like leaky gut and associated systemic conditions.



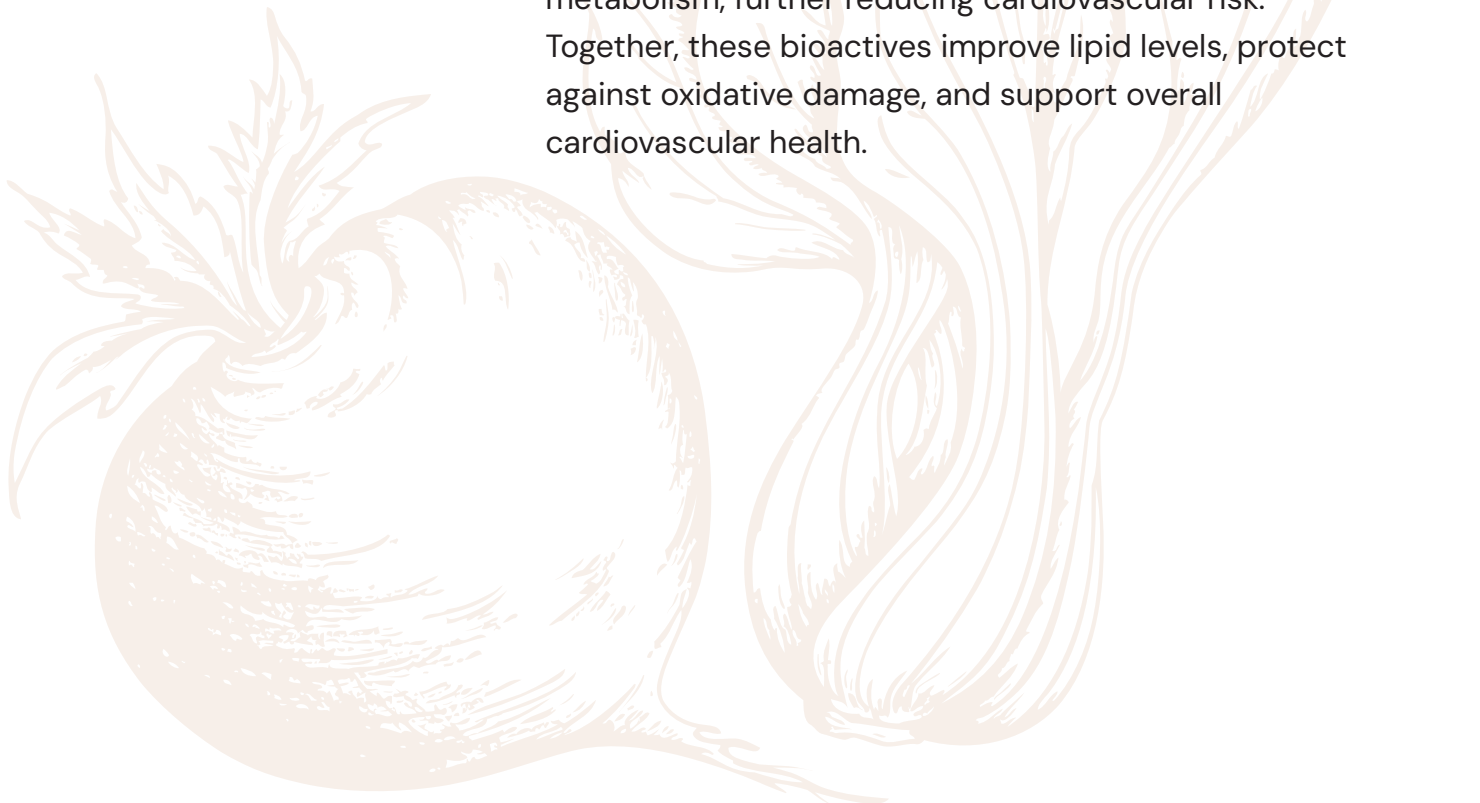
Prebiotic and Superfoods Spotlight

GLP-1 Modulation Blend

Metabolic Superfood ingredients were selected to enhance GLP-1 (glucagon-like peptide-1) secretion, a key hormone in regulating blood glucose levels and appetite. Fibers like pea fiber, corn fiber, and bael fiber slow carbohydrate absorption and stimulate short-chain fatty acid (SCFA) production in the gut, particularly butyrate and propionate, which are known to activate L-cells in the intestinal lining to release GLP-1. Fenugreek fiber and chitosan also modulate the gut microbiome, increasing populations of beneficial bacteria such as Akkermansia and Lactobacillus, which indirectly stimulate GLP-1 secretion by improving gut health and reducing inflammation. Additionally, acemannan and sprout mix, rich in phytonutrients like sulforaphane, enhance the metabolic environment of the gut, supporting the pathways that regulate GLP-1 production. Together, these ingredients work synergistically to naturally promote GLP-1 secretion, improving glucose homeostasis, enhancing satiety, and supporting weight management.

Cardiovascular Support Blend

Metabolic Superfood provides ingredients that support healthy lipid levels and cardiovascular health. Chia seed powder, pea fiber, and fenugreek fiber lower LDL cholesterol and triglycerides by enhancing cholesterol metabolism and promoting the excretion of bile acids, aided by gut microbiome modulation. Ingredients like bael fiber, camel milk, and corn fiber improve lipid profiles by reducing blood lipid levels and supporting heart-healthy outcomes, such as reduced blood pressure and body weight. Chondroitin sulfate protects blood vessel linings by inhibiting pro-inflammatory cytokines like TNF- α , helping to prevent atherosclerosis. Cutch tree acacia contains flavonoids with antioxidant and insulin-mimicking properties that enhance heart function and reduce oxidative stress. Additionally, mucin and chitosan improve gut health by fostering beneficial bacteria that regulate lipid metabolism, further reducing cardiovascular risk. Together, these bioactives improve lipid levels, protect against oxidative damage, and support overall cardiovascular health.



How Metabolic Superfood Works

These powerhouse ingredients are a game-changer for cardiometabolic health, working together to target blood sugar, cholesterol, metabolism, and heart health. Fibers like pea fiber, corn fiber, and fenugreek fiber help lower bad cholesterol, balance blood sugar, and boost insulin sensitivity, providing your body with the tools it needs to thrive. Bael fiber, chia seeds, and sprout mix support weight management and fight fat accumulation, helping you stay lean and energized. Packed with antioxidants and anti-inflammatory properties, ingredients like cutch tree acacia, chondroitin sulfate, and N-acetyl D-glucosamine protect your heart and arteries, reducing the risk of cardiovascular issues. Metabolic Superfood's powerful blend delivers all-in-one support for a healthier, more vibrant you.



Key Ingredients

Bael Fiber

Bael fiber is derived from a tree scientifically known as *Aegle marmelos*, which is native to India. It has been shown to have protective properties against type 2 diabetes through its ability to reduce insulin resistance.¹ Bael is also protective against diabetic complications, such as cataracts and nephropathy.^{2,3} Additionally, bael fiber is reported to regulate the metabolism of fats and lipids, helping to ameliorate the effects of a poor, high-fat diet. This may also help inhibit fat accumulation, as well as reduce body mass index and lipid levels in the blood.⁴

Fenugreek Fiber

Fenugreek is a clover-like herb that has been historically used to manage type 2 diabetes and high cholesterol. Recent studies have shown that fenugreek fiber supplementation helps modulate the composition of the microbiome, including increasing the populations of *Akkermansia*. Fenugreek fiber also increases the populations of beneficial bacteria that enhance the production of coprostanol, a compound resulting from the metabolism of cholesterol, which is excreted from the body as waste. As a result of increased cholesterol metabolism, blood cholesterol levels can decrease.⁵ In a meta-analysis of clinical trials, fenugreek was shown to significantly improve symptoms of metabolic syndrome, a serious cluster of metabolic disorders. Significant improvements were observed in fasting plasma glucose, triglyceride, high-density lipoprotein (HDL), waist circumference, and blood pressure.⁶ Additionally, fenugreek has been shown to modulate GLP-1 secretion, which helps regulate appetite.⁷

Sprout Mix

This complex sprout blend contains a variety of sprout types, providing a concentrated dose of phytonutrients. Notably, it includes the powerful phytochemical sulforaphane. Sulforaphane helps to improve glucose tolerance and inhibits the excessive production of glucose by the liver. These mechanisms may support patients with type 2 diabetes and obesity. Metabolic diseases can take a toll on cardiovascular health, and sulforaphane protects the cardiovascular system by activating the AMPK pathway, a critical mechanism in the regulation of cardiovascular health.^{8,9} Additionally, sprouts have been shown to increase population levels of the keystone gut microbiome species *Dorea longicatena*.¹⁰

Chia Seed Powder

Chia seeds have recently gained recognition for their potential as a superfood. They have a high concentration of soluble fiber and omega-3 fatty acids, which supports the reduction of triglycerides, LDL cholesterol, blood pressure, body weight, and fasting blood glucose. Improper management of these health indicators can lead to complications such as metabolic syndrome and cardiovascular disease. Chia seed supplementation can be a simple yet powerful tool for managing the symptoms or risk of these conditions.¹¹⁻¹³

N-Acetyl D-Glucosamine

N-acetyl D-glucosamine (NAG) is a derivative of the glucose molecule that plays an important role in maintaining the intestinal lining. It reduces the permeability of the intestinal lining by increasing the expression of occludin, a tight junction protein. NAG can also enhance the populations of beneficial bacteria in the gut. Reversing dysbiosis and repairing the intestinal lining helps to reduce intestinal inflammation, which allows for proper nutrient absorption.¹⁴ Additionally, NAG can protect the heart and cardiovascular system as a whole from the stress and damage to the body caused by diabetes.¹⁵

Chondroitin Sulfate

Chondroitin sulfate is a critical building block of cartilage in humans and other animals. A common comorbidity of metabolic issues such as high blood pressure, atherosclerosis (plaque in the arteries), and coronary heart disease is osteoarthritis. Chondroitin supplementation, often combined with glucosamine, is incredibly effective for repairing and maintaining joint health.¹⁶ Additionally, chondroitin can inhibit the proinflammatory cytokine TNF- α , which directly protects the endothelial cells lining blood vessels and interferes with the development and progression of atherosclerosis.¹⁷

Mucin

Mucin is a critical component of the mucus lining the gastrointestinal tract. The mucin molecule is a glycosylated protein, a protein covered in glucose molecules. This structure allows the molecule to become viscous, contributing to the overall consistency of mucus and enabling it to stick to and protect the gastrointestinal tract. Certain bacteria that live in the gut use mucin as a primary energy source. Various types of bacteria consume mucin, and for some, like *Akkermansia muciniphila*, this has a beneficial effect on both the gastrointestinal tract and the host. Even though *A. muciniphila* consumes mucin, it actually stimulates the gastrointestinal tract to produce a more robust and healthy mucus barrier. In contrast, large concentrations of bacteria like *Ruminococcus gnavus* can degrade the mucus layer and lead to inflammation, leaky gut, autoimmune diseases, and dysbiosis. Mucin is included in this product to help establish healthy populations of *A. muciniphila*, which is often absent or present at negligible levels in the modern human gut.^{18,19}

Chitosan (Mushroom)

Chitosan is a derivative of the structural molecule chitin, which provides structure and protection for cells and tissues. Chitin is found abundantly in the exoskeletons of crustaceans and insects, and in the cell walls of mushrooms. When chitin is converted to chitosan, it becomes a bioactive molecule. Some of its biochemical effects are prebiotic, enhancing the populations of *Lactocaseibacillus casei*, *Lactobacillus helveticus*, *Lactiplantibacillus plantarum*, and particularly *Lactocaseibacillus rhamnosus*. It also suppresses populations of pathogenic bacteria such as *Escherichia coli* and *Staphylococcus aureus*. These effects help stabilize the gut microbiome and prevent or correct dysbiosis.²⁰ In a clinical trial, long-term consumption of chitosan was shown to significantly reduce body weight and improve A1C levels, all without additional dietary changes.²¹

Corn Fiber

Corn fiber is a great prebiotic especially for those looking to support their microbiome while following a low-FODMAP diet to reduce gastrointestinal irritation. Corn fiber also supports cardiometabolic health by reducing LDL cholesterol. This effect is hypothesized to be mediated by changes in the microbiome that improve dysbiosis, allowing for proper metabolism of bile acids, which in turn regulates cholesterol levels. Consuming corn fiber before meals may also improve glycemic response. By preventing large blood glucose spikes, it is thought to reduce the risk of developing insulin resistance.^{22,23}

Pea Fiber

Acemannan is a dietary fiber found in the aloe vera plant that supports digestive and metabolic health by increasing the sensation of satiety and slowing the release of sugars into the bloodstream food consumption. These benefits can reduce overeating and help prevent insulin resistance. Acemannan can be broken down by the keystone gut microbe *Butyricicoccus pullicaecorum*, producing butyrate, a critical metabolite for gastrointestinal, metabolic, and overall health.^{24,25}

Pea Fiber

Pea fiber improves glycemic control by slowing carbohydrate absorption, stabilizing blood sugar levels, and reducing fasting glucose levels. Additionally, pea fiber modulates gut microbiota, promoting the growth of beneficial bacteria like *Eubacterium rectale* and *Eubacterium hallii* that produce short-chain fatty acids (SCFAs), which enhance insulin sensitivity. Pea fiber also contributes to better lipid metabolism by lowering fasting and postprandial triglyceride levels, thereby reducing the risk of cardiovascular diseases. Furthermore, its high fiber content promotes satiety, aiding in weight management, a key factor in metabolic health.²⁶⁻²⁹

Cutch Tree Acacia

Senegalia catechu, commonly known as the Cutch Tree, has been traditionally used for its medicinal properties, particularly in gastrointestinal ailments. Recent studies have highlighted its potential benefits in supporting metabolic health. The heartwood extract of *Acacia catechu* is rich in flavonoids such as catechin and epicatechin, which exhibit strong antioxidant properties. These compounds act as insulin mimics, contributing to antidiabetic effects and enhancing heart function. Research indicates that epicatechin can improve insulin sensitivity and provide cardioprotective effects. Additionally, the antioxidant properties of these flavonoids help reduce oxidative stress, a factor implicated in metabolic disorders.³⁰

Pullulan

Pullulan is a polysaccharide produced by the fungus *Aureobasidium pullulans*. It has been shown to support metabolic health by modulating postprandial glycemic responses. A study involving healthy adults demonstrated that consumption of pullulan significantly reduced peak blood glucose levels after eating, which may help reduce the risk of developing insulin resistance.³¹

Marshmallow Root

Althaea officinalis, commonly known as marshmallow root, is a plant traditionally used to treat gastrointestinal issues such as ulcers. It supports healthy populations of microbes in the gut, and some of the specific polysaccharides in this plant help coat the intestinal tract, aiding in the healing and rejuvenation of the gastrointestinal lining.³²

Camel Milk

Camel milk can help regulate blood sugar levels and improve insulin sensitivity. Clinical trials show that camel milk has anti-inflammatory properties, which can aid in reducing oxidative stress and promoting overall metabolic function. Additionally, it is lower in fat and cholesterol compared to cow's milk, making it a heart-healthy alternative that may help manage weight and reduce the risk of metabolic disorders such as type 2 diabetes and cardiovascular disease. The keystone gut microbiome species *Christensenella minuta* thrives on the galacto-oligosaccharides found in dairy, such as camel milk.³³⁻³⁶

Warnings/Contraindications

When used as directed there are no known contraindications for Metabolic Superfood.

It is always recommended that you consult your practitioner prior to adding any new supplement to your regimen if you are pregnant, breastfeeding, experiencing renal failure, undergoing an organ transplant(s), managing diabetes with insulin, or are taking medication(s) for any pre-existing conditions.

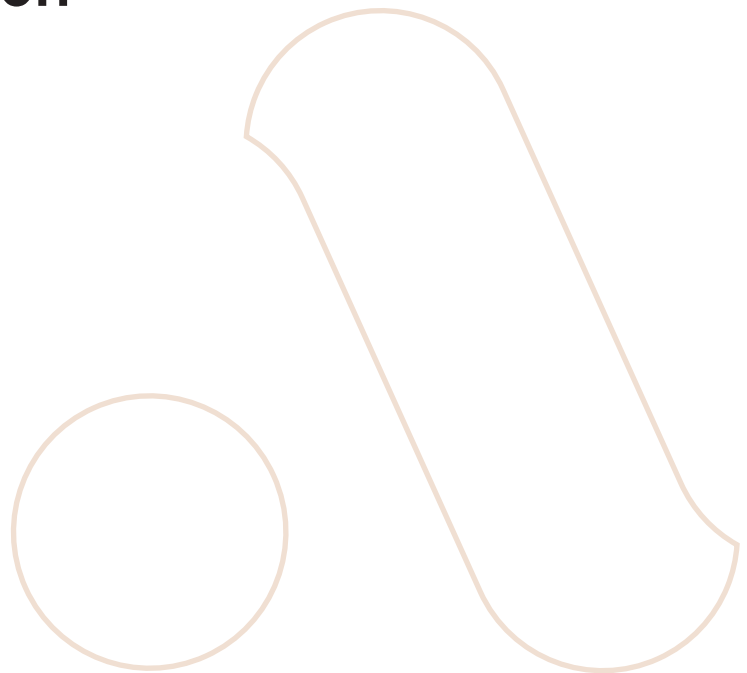
Safety

All ingredients are tested before use for:

- Pathogenic microbial contaminants
- Heavy metals and/or chemical contaminants
- Purity

Additional Information

- Gluten Free
- No Sugar
- Non-GMO
- cGMP Facility



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