SPECIFICATION

Product	: Larch arabinogalactan - Lavitol-arabinogalactan
Source	: Dahurian Larch -*Larix Gmelinii (Rupr.) Rupr.*
Part used	: Stumps
Source of Origin	: Russian Federation
Chemical family	: Polysaccharide
Composition	: Larch arabinogalactan -min. 90% by weight
CAS Number	: 9036-66-2
EINECS	: 232-910-0
Identification	: HPLC method
Physical state	: Solid powder
Colour	: From off-white to pale cream or light grey
Solubility	: Soluble in ethanol, water-ethanol solutions, ethyl acetate; water,; almost insoluble in oils: in pure ethyl alcohol
Extraction solvent	: Aqueous-alcohol solution
Stability	: Stable at normal conditions of at least 5 years
Shelf life	: 2 years from the date of production

Larch arabinogalactan is a complex water-soluble polysaccharide compound of plant origin.

Larch arabinogalactan is widely used in pharmaceutical and food industries. Larch arabinogalactan is used as the adjuvant and as an independent component in production of dietary food supplements.

Arabinogalactan is an all natural soluble prebiotic dietary fiber that promotes better disintegration, nutritive absorption and digestion in the gastrointestinal tract and could be recommended as a functional dietary supplement in the daily diet. Arabinogalactan promotes to increase the production of short-chain fatty acids, which are extremely important for normal functioning of the organism.

Arabinogalactan is good stabilizer and could be used to increase the stability of emulsions of cosmetic products. Having the water-holding properties, arabinogalactan decreases the loss of transepidermal water, keeping the moisture and improving the skin nutrition.

Extraction and Processing

Ametis JSC has full package of registration documents, including Certificates of State Registration, Declarations, Certificates of Conformity, etc.;

ISO 9001:2015, ISO 22000-2005, HACCP complying production line;

The technological production line is equipped with modern high-tech equipment, which allows to produce high quality products.

Quality Check and Assurance

Every batch is tested for active ingredients - arabinogalactan;

Heavy metals, pesticides, microbiological characteristics, physical analysis are carried out for every batch;

Each batch of the finished product is accompanied by a Certificate of Analysis.

Environmental Responsibility

Larch arabinogalactan - Lavitol-arabinogalactan is extracted from the stumps of Dahurian Larch, that are in fact the waste products in the wood processing industry. The logging is carried out in a manner that reduces damage to the environment. We stock the stumps in such a way to decrease the putrefaction of remains of trees in the forest and to prepare the land for further development of new saplings. The stamps liquidation of Dahurian Larches allows to decrease the quantity of dead-wood, that is highly important during the non-fire-rated period;

We strive to comply with the principles ensuring environment preservation, aimed at prevention of environmental polution and efficient management of energy and natural resources.

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AMETIS

Dahurian Larch Tree Extract

LARCH ARABINOGALACTAN

under the trade mark

LAVITOL®

Raw Material for production of dietary supplements, cosmetic and food products

Arabinogalactan is an all natural soluble prebiotic dietary fiber that has a beneficial impact on the gastrointestinal system.
Arabinogalactan promotes better disintegration, nutritive absorption and digestion in the gastrointestinal tract, prevents intestinal diseases and the negative impact of carcinogens and could be recommended as a functional dietary supplement in the daily diet.
Arabinogalactan promotes to increase the production of short-chain fatty acids, which are extremely important for normal functioning of the organism.

LARCH ARABINOGALACTAN REGULATION

The Methodical Recommendations of the State Sanitary and Epidemiological Regulation No 2.3.1.1915-04 "Recommended norm of consumption of food and biologically active supplements" has determined the appropriate and the highest allowable level of arabinogalactan consumption: **10-20 g** per day.

The FDA approved Larch arabinogalactan in the 1960's for use as a food additive

Biological Effects and Key Benefits of Larch Arabinogalactan

Bactericidal properties

* stimulates antiinfectious resistance of organism
* activates all cytophagous processes including chemotaxis, adhesion, absorption bactericide ability of peritoneal macrophages.
* inhibits the reproduction of pseudotuberculous microbes inside microphages.
* increases the activity of NADPH - oxidase and superoxide scavenger, activates oxidative metabolism of cells and, thus, activates bactericide effect as respect to absorbed microorganisms

Membrane tropic agent

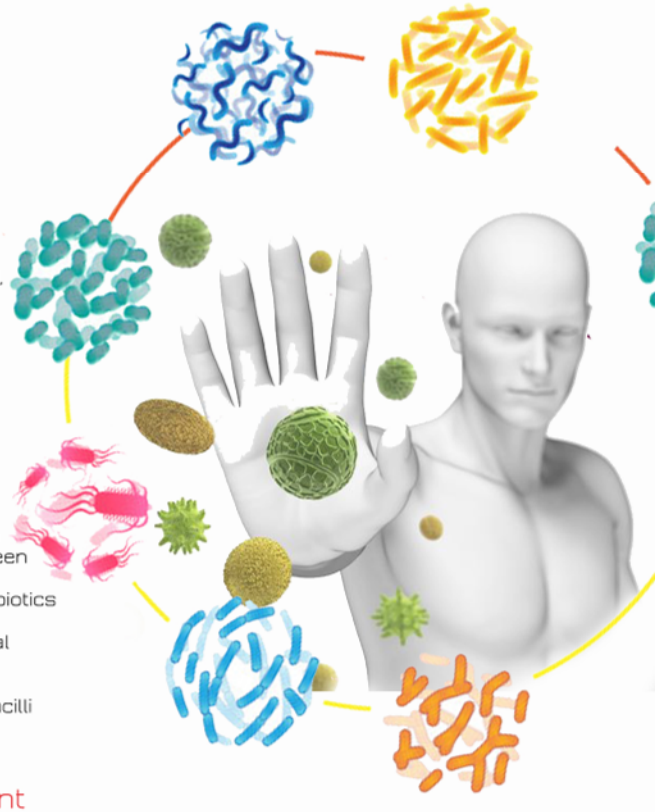
Larch arabinogalactan has high membrane tropic activity.
Due to its water solubility arabinogalactan has been found to be preferable carriers. Due to its polymetric nature and membrane tropic properties, this natural polysaccharide can be used for directional carrier of medical preparations and biologically relevant trace elements.

Acting as a prebiotic

* has a beneficial impact on the gastrointestinal system.
* promotes better disintegration, nutritive absorption and digestion in the gastrointestinal tract
* could be recommended as a functionaldietary supplement in the daily diet.
* promotes to increase the production of short-chain fatty acids, which are extremely important for normal functioning of the organism

Immune booster

* can boost the immune system and, in turn, protect against the common cold, influenza, hepatitis C, HIV/AIDS, and other types of viral and bacterial infections
* Larch arabinogalactan directly stimulates the mononuclear portion of the immune system, increasing the production of monocyte cells.
* Increases of circulating peripheral white blood cells and total monocytes. Monocytes defense mechanisms to foreign invaders like the organisms/ viruses responsible for causing the common cold and flu.



Source of soluble dietary fiber

* Arabinogalactan is classified as a prebiotic dietary fiber because it resists digestion by the enzymes of the small intestines and enters the large bowel intact, where it is fermented by bacteria to produce short chain fatty acids. These acids lower the colon pH that creating on environment flavoring the growth of friendly bacteria, which has been noted to potentially reduce the risk of colon cancer. Fermentation of arabinogalactan proceeds slowly, decreasing the side effects of gas and bloating that some other prebiotics exhibit.
* Due to its hygroscopicity (the ability to absorb water) arabinogalactan has a beneficial influence on digestible food that could avoid number of large intestine diseases.
* increases beneficial microflora
* creates the favorable conditions for the growth of probiotic bacteria such as Lactobacilli and Bifidobacteria in the intestines, which are important for GI Tract health.

Gastroprotective agent

* increases the production of short-chain fatty acids, principally butyrate and propionate and has been shown to decrease the generation and absorption of ammonia.
* has a significant beneficial effect on enhancing gut microflora, specially increasing anaerobes such as Bifidobacteria and Lactobacillus, while decreasing Clostridia.

Larch arabinogalactan - natural polysaccharide Supports Intestinal & Immune Health