

*dietary supplement produced by the unique patented technology

Components

OMARIDIN is a dietary product which is composed of pure protein (detectable by MALDI-ToF 17 amino acid types Lys, Met, Thr, Tyr, Ser, Cys, Ala, Asp, Arg, Val, Glu, Gly, His, Ile, Leu, Pro, Phe), rich in fiber, vitamins A, D3, E, B2, B6, B1, minerals P, Ca, Cu, Fe, Se, Zn, Mg, K, Na, lipids, fibers and *Saccharomyces spp* yeasts having 12 Mb genome which is in 11% similar to human one.

Uses

OMARIDIN can be used to potentially prevent and treat numerous disorders and diseases such as:

- rehabilitation in case of debilitating diseases (anorexia, cachexia, postoperative period after the digestive tract surgery, tuberculosis, other exhausting infectious diseases, including oncological pathologies)
- hepatitis, liver fibrosis and diseases of the pancreas
- atherosclerosis
- kidney diseases (unbalanced types of protein damage the functions of the kidneys: gelatin, bone broths, offal foods)
- hypospermia, aspermia, impotence
- frequent colds

OMARIDIN also enhances cellular immunity by activating macrophages, prevents aging and can be used for planned parenthood.

Scientific background

During coronavirus pandemic people with low and weakened immunity can be in high risk of serious illness and sometimes even death. Vaccines were proposed as a remedy, however, efficacy and safety of them are under discussion and only years of clinical trials will actually clarify it. In addition, there is not enough of knowledge about coronavirus behavior inside human body and its evolution. One of possible solutions to lower COVID-19 symptoms is to increase human natural defense system. Here we present the overview of dietary supplement OMARIDIN and its positive effects on immunity boosting.

It does exist the link between healthy functioning intestine and human immune homeostasis. Recent studies showed that gut microbiota plays an important role in development of immune system¹. Stress, unbalanced diet, medicinal treatment (especially, with antibiotics) and worsening ecological situation can disturb the microbiota and therefore, hinder human natural protection system against pathogens, viruses and toxins including activation of **phagocytosis**², an important cellular process when cells (macrophages) engulf and digest large particles.

Numerous approaches were made in order to understand how to restore intestinal microbial balance and treat systemic auto-immune diseases, liver failure as well as cancer which are believed to be a result of gut microbial disturbance³. One of this methods relies on the use of *Saccharomyces spp* saprophytic fungi^{4,5,6} that potentially help to eliminate the excess of opportunistic microorganisms (*C. albicans*, *S. aureus*, *E. coli* etc) by **activating Toll-like receptors**^{7,8} (innate immune system) which are present on the surface of macrophages (leukocytes, NK cells, dendritic, T and B cells etc). To note, recent studies found that individuals who suffered in severe COVID-19 had lower levels of NK cells compared to those who had non-severe disease⁹. NK cells particularly destroy virus-infected cells in absence of antibodies and MHC complex.

Different probiotic dietary supplements are already present on the market, however, OMARIDIN has a lot of advantages compared to commercial probiotics as it is manufactured by **the unique patented technology**. OMARIDIN supplement is based on fermented by *Saccharomyces spp* milk protein which is absorbed in upper levels of small intestine and ensures the presence of essential amino acids in the blood plasma and biosynthesis of the proper protein by the human body that leads to significant relief in the activity of proteolytic enzymes in the stomach and pancreas. Enzymes constitute an important part of metabolic processes, so their formation and activity depend on the availability and accessibility of amino acids.

Extreme heating (which is avoided in our case) results in protein denaturation and aggregation,

as well as the formation from fats of harmful for human body oxysterols which affect blood vessels, cause cancer and other inflammations and age-related disorders. During the milk fermentation, the saprophytic fungi of *Endomyces Omaricum* destroy harmful for the human organism cow's milk ingredient - **α-lactose** which cannot be digested by individuals suffering from lactose intolerance. The lactic acid and carbon dioxide produced from α-lactose have bactericidal properties which inhibit the excessive bacterial growth in the intestine resulting in a decrease in the development of pathogenic forms of bacteria and fungal microbiota. As the increased bacterial growth leads to the **excessive oxidation** of SH-functional groups of cysteine (source of sulfur for collagen biosynthesis and crucial for production of antioxidant glutathione) and formation of disulfide bridges S-S of cystine which is biochemically inactive and its excess disturbs the redox balance to oxidized state that influences on signaling of cell proliferation and apoptosis, and therefore, development of cancer, diabetes, atherosclerosis, cardiovascular diseases¹⁰.

As it was mentioned before, healthy intestinal microflora is a key factor to well functioning immune system that is a result of balanced cellular and extracellular metabolic processes. So therefore, OMARIDIN **restores the intestinal homeostasis and helps to enhance immunity** by modulating immune response with help of essential nutrients as building blocks, active molecules (vitamins, minerals, fibers) implicated in various cascades of human metabolism and saprophytic fungi regulating excessive microbial growth.

OMARIDIN contributes to the normalization of the mass and body structure, suspends body aging, helps to synthesize molecules with antitumor and antioxidant properties. OMARIDIN also normalizes the production of cholesterol and special blood proteins that are involved in the lipid metabolism and increase the sensitivity of cells to insulin. It helps to reduce the amount of sugar in the blood and to improve its composition as a whole.



OMARIDIN is a pure high-quality hypoallergenic protein produced on the basis of the saprophytic fungi of *Endomyces Omaricum*. The drug is obtained by fermentation of dairy products due to the unique technology devoid of excessive amounts of α-lactose.



OMARIDIN is the optimum choice for dietary food suitable for use in case of allergic diseases caused by endogenous and food-exogenous proteins, which counteract the development of excessive amounts of bacteria in the intestine since it has mild antibiotic (antibacterial) properties.



OMARIDIN is a natural high concentrated product of natural irreplaceable and replaceable amino acids. When it gets in the blood of a consumer, the protective and detoxifying functions of the body increase sharply, including increase of phagocytosis.

Technology of manufacture

Dairy milk products are fermented by the saprophytic fungi *Endomyces Omaricum* at the stage of the technological process which is inherent in acquiring its properties (in concern of the saprophytic fungi). The saturated suspension is brought to the appropriate concentration using special drying chambers, which is an integral part of the technological process. The drying technology is formed on the basis of length of the solar infrared wave. Sunlight is a key factor in photosynthesis, a process used by plants and other autotrophic organisms to transform light energy, which is usually the energy of the sun, into chemical energy that can be used to feed organisms. The temperature of the drying mode does not exceed +38°C.

Trials on animals

Intensive industrial aviculture is based on the use of high-calorie fodders which can influence on structure of avian liver, and therefore, decrease growth, body weight and productive life of poultry. To test OMARIDIN-based animal nutrition, we systematically added it (0,1-0,2%) to avian fodder during 59 days. The results were more than impressive: poultry which was in hopeless condition and put aside for culling not only gained in weight but also showed increased egg laying levels on 100%.

References

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