

# GLISODIN® is the revolutionary, first orally effective, 100% vegetarian superoxide dismutase.

## **Properties:**

Oxygen is the most important element for life in the animal kingdom particularly for humans. During its utilization by the human body, oxygen gives birth to very reactive forms called "free radicals". Free radicals are destroyed by the natural defense systems named "antioxidants". The body's antioxidant mechanisms can be classified into 2 groups:

- Dietary antioxidants (exogenous): certain foods are rich in antioxidant substances like vitamins (Vitamin C, Vitamin E, and Vitamin A or its precursor beta-carotene), minerals (Selenium, Zinc, Copper, and Manganese) and other substances, including the polyphenols found in grapes and green tea.
- Enzymatic antioxidants made by the body (endogenous): the three main enzymes are Super Oxide Dismutase (SOD), Catalase and Glutathione Peroxidase.

Among these enzymes, SOD intervenes in the first transformation - by dismuting the most reactive forms ( and therefore the most dangerous for the cells) of oxygen - the SuperOxide radicals - into ions that are less reactive, themselves destroyed by the two other enzymes. This transformation is called dismutation, thus its name Dismutase.

If these defense mechanisms do not immediately eliminate the free radicals, the body's cells suffer from an "oxidative stress" that can lead to or promote health problems. Scientific studies carried out the last decades have established that oxidative stress is implicated in numerous pathologies including immune system deficiency, respiratory problems, memory loss, cardiovascular problems, vision problems and arthritis. This has lead to a great number of medical natural or synthetic antioxidants on the market. Nutritionists and doctors recommend diets rich in exogenous antioxidants (Vitamins, Minerals, Polyphenols...etc) and if need be, in the form of dietary supplements.

A supplement of antioxidant enzymes, particularly in SOD, has already been considered and tested by different scientific teams. Unfortunately, all their works showed that the oral administration of SOD was inefficient due to the fragility of this enzyme which is immediately destroyed by the gastric acidity. Moreover, concerns linked to sanitary risks led to giving up the use of bovine SOD, which at the time, was used by intramuscular injection, the only practical method.

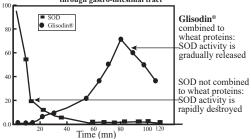
#### Glisodin® is the fruit of a double innovation:

• Identification of a vegetable source of SOD, which is for safety reasons, an edible plant.

The objective was reached by selecting a variety of melon (Cucumus melo not genetically modified) that is naturally rich in SOD.

• Developing a galenic formulation capable of protecting the SOD from the gastric degradation. This was possible thanks to the conception of a wheat protein matrix that protects the SOD activity allowing it to be assimilated by the intestinal cells. The result is spectacular, as shown in the following figure:

### Glisodin® absorption during its passage through gastro-intestinal tract



This second innovation has been protected all over the world with patents (Patent France n°2 729 296, Patent Europe n°804 225, Patent USA n° 6 045 809, Patent Japan n°520 616).

## These works have led to the delivery of the first orally "bio-active" SOD that is 100% plant origin.

Numerous scientific studies have been carried out with vegetable GLISODIN®: they show that after oral administration of GLISODIN® there is a stimulation of the natural production (endogenous) of SOD by the body. The restoration of SOD allows an optimal level of defense in all the cells and organs of the human body against the free radicals and in consequence, against the risk of infection by restoring the immune system. Given the essential role of SOD in most health functions numerous dietary and therapeutic applications can be considered and are currently the subject of clinical studies. The unique and beneficial properties of GLISODIN® allow it to be recommended in all situations where the natural protection system is solicited against free radicals, leading to the weakening of the immune system. Such situations are found among elderly people and also any person subjected to external aggressions: winter, convalescence, stress, sun exposure and intense physical exercise.

### UTILIZATION GUÍDE:

GLISODIN® can be taken either in short-term intervals or for long-term daily supplementation.

• Short-term intervals:

-To take advantage of all the protective and healing effects of GLISODIN®, it is recommended to take four courses of supplementation per year. Take 2 capsules (500 mg/day); preferably at breakfast, for a period of 4-6 weeks (one month each time with 2 months break in between).

- Additional supplementation can be taken for any of the strains on the body's natural defense system: convalescence, intense exposure to the sun or ultra-violet rays, stress or intense physical exercise (after a sport competition or for people practicing sport occasionally).

• Daily (long-term) utilization:

For a long-term support of the immune system, against the free radicals, you may want to take a capsule (250 mg) every day at breakfast.

GLISODIN® is not to be used by pregnant women or children under 12 years of age. Due to the presence of wheat proteins, this product should not be used by peoplel allergic to gluten.

Benta S.A.L.

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