



**The Antioxidant Catalyst™**



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GliSODin is covered by U.S. patents: 6,045,809 and 6,426,068B1,  
with additional patents pending.

\*These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure or prevent any disease.

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# Did you know...?



**GliSODin promotes  
your body's own  
antioxidant defense  
system and offers  
these real health  
benefits...**



# GliSODin®

**The Antioxidant Catalyst™**



**The Antioxidant Catalyst™**

**Helps maintain cellular health and protect against damage caused by oxidative stress\***

**Helps reduce lactic acid buildup in humans under physical stress\***

**Helps support skin health against photo-oxidative stress caused by UV rays\***

**Helps promote our antioxidant defense system and healthy immune function\***

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**GliSODin is a radically new approach to antioxidant supplementation. Unlike secondary dietary antioxidants, GliSODin works as an antioxidant catalyst, promoting the production of the body's own, primary antioxidants at the cellular level.\* And human research has proven GliSODin helps provide real health benefits.**

## GliSODin – The antioxidant catalyst

If you are like most people, chances are you never knew the human body has its own built-in antioxidant defense system. In fact the body's own antioxidants, including SOD, are by far the most important, providing the first line of defense against harmful oxidative stress.

Unfortunately, aging, environmental factors and the stresses of daily life can diminish the levels of these important innate antioxidants. How can we be sure that our internal defense system is going to be ready for whatever life throws our way?

## Let's start at the beginning...

### What are Antioxidants?

In the cells of our tissues and organs, metabolic processes constantly occur, including oxygen metabolism. As oxygen and other compounds are broken down to be utilized by the body, molecules become unbalanced, creating "free radicals" or "oxidants."

When free radicals or oxidants are produced in abundance, cells suffer from oxidative stress. Fortunately, compounds called antioxidants quickly balance the free radicals, inhibiting oxidative stress. Cellular health, and our health overall, depends on maintaining this balance.

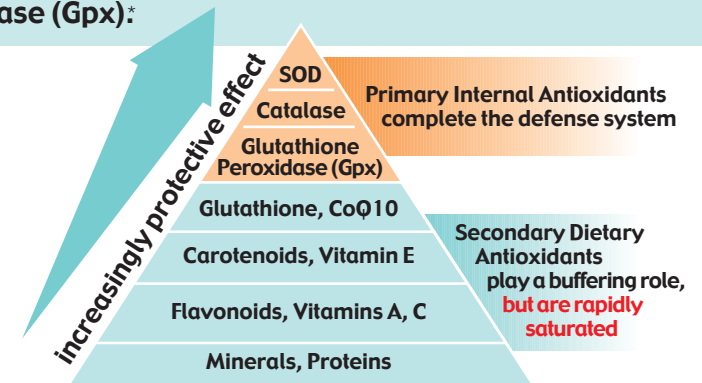
### Primary vs. Secondary Antioxidants?

GliSODin works to promote our own antioxidant production at the cellular level. This internal antioxidant defense system differs from secondary antioxidants that are obtained from dietary sources.

The body's antioxidant supply can be classified into two groups:

- **Primary antioxidants** are made by the body, thus internally provided. This internal antioxidant defense system includes Superoxide Dismutase (SOD), Catalase and Glutathione Peroxidase (Gpx), which are the first, and most powerful, line of defense against oxidative stress.
- **Secondary antioxidants** are externally provided from dietary sources, such as vitamins (vitamins A, C and E), minerals (selenium, zinc, copper and manganese) and other substances, including polyphenols found in grapes and green tea. These dietary antioxidants contribute to the antioxidant reserve, yet play a secondary role to the body's own antioxidants.

**GliSODin activates the most powerful antioxidants known, the body's own internal antioxidant defense system, including Superoxide Dismutase (SOD), Catalase and Glutathione Peroxidase (Gpx)\***



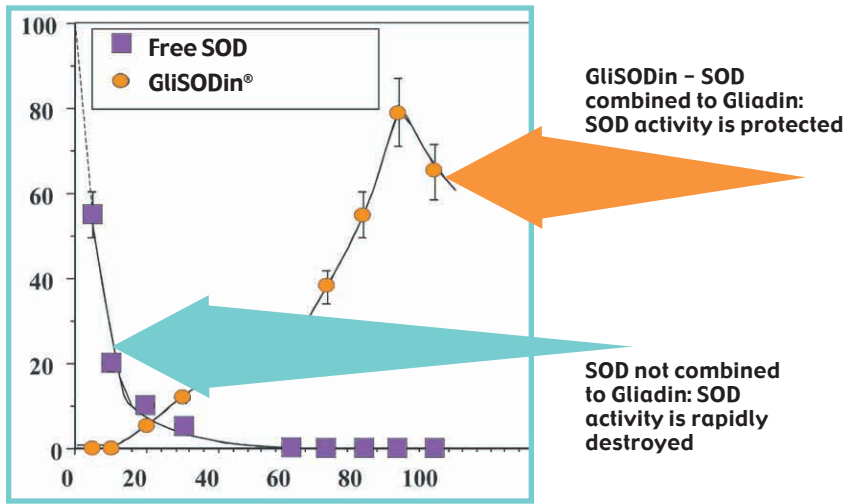
### Superoxide Dismutase (SOD)

Among the antioxidants our bodies produce, SOD plays the primary role. SOD transforms the most reactive, and therefore, the most dangerous, free radicals – the superoxide radicals – into ions that are less reactive. These less reactive ions are then transformed by Catalase and Gpx. This transformation is called dismutation, thus its name Superoxide Dismutase. SOD also "signals" other cells to produce more SOD, preparing the antioxidant defense system against free-radical attack.\*

**GliSODin is the first orally-effective SOD supplement\***

SOD can be derived from a number of sources, including wheat, melons, and most commonly from animal (bovine) sources. Yet when SOD from these sources is consumed, it is destroyed in the digestive system by stomach acids and digestive enzymes.

**“Digestive medium sampled to measure SOD levels over time”**



Using a medium that mimicked the GI tract, scientists sampled SOD levels over time. Free SOD activity was totally destroyed within the first 10 minutes. However, when the SOD was encased in gliadin wheat protein, its enzymatic activity remained intact. The controlled release of SOD was seen after 30 minutes and reached a maximum release between 80 and 100 minutes.

French scientists at Laboratories Isocell discovered a method to protect SOD from digestion.

GliSODin, the only orally-effective SOD supplement, is protected by international patents and U.S. patents 6,045,809 and 6,426,068B1, with additional patents pending.

**Promotes the body's antioxidant defense system\***

GliSODin's effectiveness is due to the two unique compounds from which its name is derived, Gliadin and SOD. First, GliSODin provides a melon source of SOD. Second, GliSODin is protected by gliadin, a wheat protein that guards SOD during digestion, making GliSODin a completely vegetarian product.

In addition to protecting the SOD, Gliadin is a patented, scientific breakthrough in the delivery of the SOD. Gliadin has bio-adhesive properties that make GliSODin “stick” to the epithelial cells in the small intestine, presenting the SOD for utilization by the body.

In a series of experiments, scientists have demonstrated that the gliadin proteins protect SOD against the acids and digestive enzymes produced in the stomach and intestines, thus promoting internal antioxidant levels.

**Effect of GliSODin supplementation on antioxidant blood levels**

	Control	GliSODin
<b>Antioxidant Status</b>	1.39 ± 0.03	1.98 ± 0.06
<b>SOD (U/g Hb)</b>	1720 ± 125	3250 ± 255
<b>Gpx (U/g Hb)</b>	800 ± 33	1210 ± 89
<b>Catalase (KU/g Hb)</b>	35 ± 5	95 ± 6

Laboratory research: GliSODin was supplemented for 28 days. Samples were tested for antioxidant levels.

GliSODin activates the most powerful antioxidants known, the body's own internal antioxidant defense system, including superoxide dismutase (SOD), catalase and Glutathione Peroxidase (Gpx).

This action has been shown in human clinical studies to protect cellular health from oxidative stress, inhibit photo-oxidative stress, support healthy immune function, inhibit lactic acid accumulation under exercise and positively affect other significant markers of oxidative stress.\*

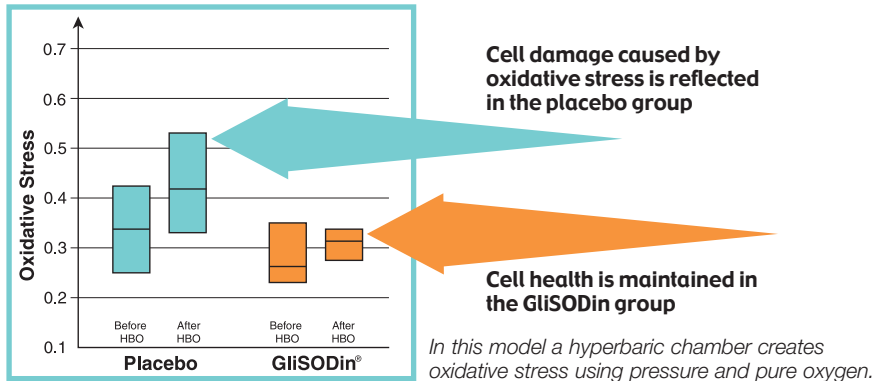
**GliSODin helps maintain cellular health and protect against damage caused by oxidative stress\***

## Clinical Research

GliSODin promotes cellular integrity and health by increasing the antioxidant response.\* And GliSODin's protective benefits have been demonstrated in human interventional studies.

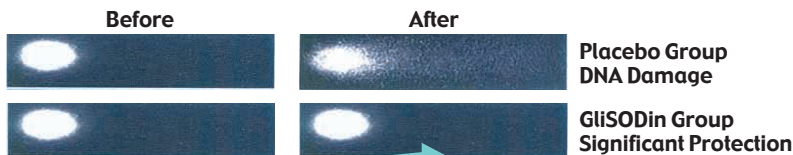
GliSODin was shown to protect against cellular oxidative stress damage in a dramatic human model. In this double-blind, placebo-controlled trial, twenty healthy volunteers were given pure oxygen in a hyperbaric chamber (HBO), which increased atmospheric pressure to 2.5 times normal, inducing intense oxidative stress. A measure of blood cell protection, looking at the integrity of the cellular DNA, was taken before and after exposure to measure the effect of oxidative stress.

### Effect of GliSODin In a human study with induced oxidative stress



One group was given 1000 mg GliSODin once daily for two weeks prior to the test, while the placebo group received 1000 mg of wheat gliadin alone. The GliSODin group had significantly lower cellular DNA damage as evidenced by a test called "Comet Assay." Further, these findings coincided with reduced blood isoprostane levels, another marker of oxidative stress.\*

### Comet Assay Cell Nucleus Damage



**Oxidative Stress**

*In the GliSODin group, the cell nucleus is intact, while the placebo group shows progressive nucleus damage with pronounced "comet tail."*

**GliSODin helps support skin health against photo-oxidative stress caused by UV rays\***

GliSODin's benefits protecting cells against oxidative stress are also supported by two preliminary studies looking at the effects of Ultraviolet Rays (UV) on the skin, inducing photo-oxidative stress.

The first study was a randomized double-blind study with 50 participants. Using a UV light, researchers created photo-oxidative stress on the skin, causing a burn and measuring the change in the color of the skin (redness) on the inner-forearms of healthy subjects. They conducted the UV stress test before starting supplementation with 500 mg of GliSODin or placebo, and repeated it each week for four weeks during supplementation.

After using GliSODin, a significantly greater amount of UV exposure was required to create the redness and burn on the skin. This was not seen in the placebo group.

The researchers concluded that GliSODin appears to effectively help protect against oxidative stress resulting from exposure to the UV radiation, particularly for fair-skinned (phototype II) people.\*

The second study was an open clinical trial conducted by forty dermatologists in France. 150 volunteers were chosen based upon their susceptibility to flushing and burns and other oxidative stress reactions caused by exposure to the sun. The participants took 500mg of GliSODin daily over a 60 period, and did not change their sunbathing routine, including use of their regular sun screen (Index 20-100). This preliminary study suggests that the antioxidant properties of GliSODin may help support skin health against photo oxidation.\*

**GliSODin helps support healthy immune function\***

Significant oxidative stress that is the result of the natural processes of aging, emotional stress and environmental exposure can diminish our antioxidant defense system.

For example, individuals who have reduced levels of SOD, catalase and Gpx may have higher levels of free radicals.

A recent study showed marked improvement in individuals with reduced levels of our natural antioxidant defenses. GliSODin supplementation restored the natural antioxidant capacities to healthy levels, including SOD, Catalase and Gpx.

By elevating the levels to healthy ranges, GliSODin supplementation could help support the immune system and down-regulate oxidative stress. GliSODin helps promote healthy levels of our antioxidant defense system.\*

**Increasing the capacity to respond to oxidative stress has the potential to positively impact a variety of issues, including energy, vitality and ability to handle the stresses of daily life.**

**GliSODin helps reduce lactic acid buildup in humans under physical stress\***

Exercise is another model for evaluating the effects of induced oxidative stress. Strenuous exercise abruptly increases oxygen consumption, aggravating oxidative stress by generation of free radicals.

In one compelling study, healthy volunteers supplemented their diets with GliSODin. The participants underwent strenuous exercise before starting GliSODin at 1500mg daily, and after 4 weeks of supplementation. Several markers of oxidative stress were compared before and after, including total blood antioxidant levels and lactic acid accumulation.\*

GliSODin supplementation resulted in a significant positive change in oxidative status and a significant decrease in exercise-induced lactate release, suggesting that damage-causing oxidative stress was significantly inhibited. These findings are supported by several in vivo and human studies.\*



**What about other forms of SOD?**

SOD supplements derived from wheat or bovine sources have been evaluated and tested by different scientific teams. Unfortunately, it was shown that the oral administration of SOD was inefficient due to the fragility of this enzyme, which is immediately destroyed by gastric enzymes and acidity. Enteric coating, or coating that protects against stomach acids, are also ineffective. Once the coating is broken down so that the nutrients can be absorbed, the digestive enzymes in the small intestines will destroy the SOD. Further, only gliadin's bioactive properties have been shown to promote SOD utilization\*.

**What about Gliadin (gluten) allergies?**

Gliadin is a wheat biopolymer and is a source of gluten. For this reason, GliSODin is NOT recommended for anyone with wheat or gluten sensitivities. If so, please use as directed by a physician. However, there is less gliadin in 250 mg of GliSODin than in one slice of bread. Additionally, a published study hypothesized that the SOD delivered in the GliSODin complex actually decreased the pro-allergenic effects of gliadin during digestion.\* Therefore, for most people, the gliadin content in GliSODin is likely not an issue.

**Is GliSODin safe?**

GliSODin combines an extract from a variety of non-genetically modified melon (*Cucumis melo*) that is naturally rich in SOD, providing a food-based, vegetable source of SOD. Gliadin is a food-based wheat polymer. Thus it is NOT recommended for anyone with wheat or gluten sensitivities. GliSODin is well tolerated and is safe for consumption with no chronic or acute toxicity.