

Fucoidan 70% Brown Marine Algae

**Doctor's
BEST**

Science-Based Nutrition™



NOTE: Doctor's Best Fucoïdan's seaweed is cultivated in a protected coastal marine agricultural area off the coast of China in the city of Weihai. Our supplier takes serious consideration about the environment responsibilities when they collect their seaweed. A significant portion of the edible *Laminaria japonica* is grown in the same coastal area. The algae is actually harvested on ropes that are gathered when the algae has matured and a special tool is used to cut the seaweed from its bottom; so the seaweed is neither surface nor dredge harvested. It is a completely sustainable, natural and carefully managed marine agricultural product.

INGREDIENTS

Fucoïdan 70% extract

Doctor's Best Fucoïdan 70% contains the glyconutrient fucoïdan derived from brown algae. Seaweeds are a part of the diet in many cultures and fucoïdan-containing species have been used traditionally for a variety of health-promoting purposes. Fucoïdan contains an abundance of immune-modulating constituents known as polysaccharides. These unique and complex sulfated polysaccharides are not found in other seaweeds or land plants, and have been shown to mediate a variety of significant biological effects on mammalian cells in laboratory research. Research also suggests that fucoïdan may possess significant antioxidant activity.

BENEFITS

- Enhances Immune System Function*
- Potent Antioxidant Support*

EXTENDED BENEFITS

Enhances Immune System Function*

Cell walls from marine algae contain an abundance of sulfated polysaccharides. Fucoïdan is one class of these polysaccharides found in brown algae. Polysaccharides are known to have various effects on immune enhancement and possess other biological activities.

Researchers studying fucoïdan fractions from algae have tested their ability to enhance immune function in various *in vitro* assays. In one

such study, isolated fucoïdan fractions from a water-soluble extract of *Fucus vesiculosus* as well as commercial sources of fucoïdan were shown to enhance resistance and support an immune response by impacting enzyme-mediated replication activity in the cells studied in this assay.¹ Further *in vitro* work confirms the immune modulating activity of fucoïdan.

Researchers showed that sulfated fucans were able to inhibit complement-mediated destruction of sheep red blood cells and rabbit red blood cells *in vitro*, suggesting a potential application as immune-supportive agents.² The complement system is an important component of our immune system that utilizes a cascade of small proteins found in the bloodstream to mount an immune response in the body. In this assay, it was found that the immune-modulating activity increased with increasing molecular weight and with increasing glycolipid content of the fucoïdan fractions. This line of *in vitro* research suggests that fucoïdan and its various fractions may be potent balancers of immune function.

Research also suggests that fucoïdan may support a healthy cytokine-based immune response and affect immune function at the level of immunomodulatory enzymes. This work was done in the laboratory in human tissue sections. Enzymatic action was shown to be inhibited in these connective tissue sections with the addition of fucoïdan fractions, suggesting support of healthy connective tissue by fucoïdan.³

The results of these individual assays, when put together, point to the fact that fucoïdan possesses the potential to modulate various significant aspects of immune health.

Potent Antioxidant Support*

Recently, fucoïdins have been theorized to have significant antioxidant potential because of the nature of their chemical structure. In order to support this notion, researchers began

Supplement Facts

Serving Size 2 veggie capsules

Servings per container 30 servings

	Amount per serving	% Daily Value
Fucoïdan extract (Standardized to 70% fucoïdan)	600 mg	†

† Daily Value not established.

Other Ingredients: Rice powder, modified cellulose (vegetarian capsule), magnesium stearate (vegetable source).

Suggested Adult Use: Take 2 capsules daily with food, or as recommended by a nutritionally-informed physician.

Non-GMO / Gluten Free / Vegan

Store in a cool dry place.

* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

performing various assays to measure the antioxidant potential of fucoidan fractions. One such assay is the ferric reducing/antioxidant power (FRAP) assay. This is an in vitro test measuring the ability of a compound to reduce iron, which has a pro-oxidant role in the body. The assay quantifies the ability of the compound being tested to reduce iron, and this correlates to its potential antioxidant activity levels. Using this measure, it was shown that fucoidan fractions increased FRAP values considerably between 4 minutes to 30 minutes of exposure, indicating the antioxidant potential of these compounds. Further in vitro work has also suggested that fucoidans have antioxidant effects. A study assessed the free radical scavenging ability of various seaweed fractions using the DPPH assay. It was shown that seaweed extracts containing fucoidan had the highest activity levels of all the extracts tested in this study.⁴

The potential antioxidative activities of enzymatic extracts from brown seaweeds have also been demonstrated using various reactive oxygen species (ROS) scavenging assays. The assays used in one particular study included the DPPH, superoxide anion, hydroxyl radical and hydrogen peroxide scavenging assays. The extracts tested showed especially high free radical scavenging activity on the hydrogen peroxide scavenging assay and demonstrated strong protective effects against DNA damage. Some of the extracts tested also demonstrated high superoxide anion scavenging ability, when compared to commercial antioxidant controls such as alpha-tocopherol, BHT and BHA.⁵

With the dual actions of supporting and balancing immune health and possessing free radical scavenging properties, Best Fucoidan 70% extract may be a highly effective supplemental nutrient for maintaining optimal health and wellness.

SCIENTIFIC REFERENCES

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4. Ruperez P, Ahrazem O, Leal JA. *Journal of Agricultural and Food Chemistry* 2002;50:840-845.
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