

# Fibronol®

## FibroBoost™



Fibronol® 55790, 150 Vegetarian Capsules  
FibroBoost™ 55910, 75 Vegetarian Capsules

### The Possible Benefits of Fibronol® and FibroBoost™, Dietary Supplements

- Provides phlorotannins, powerful marine-based antioxidants
- Provides nutritional support for the cardiovascular system, brain, metabolism and general condition\*

### Description

Fibronol® and FibroBoost™ contain Seanol-F, a patent-pending brown seaweed extract. Seaweeds, or algal plants, have long been used by traditional cultures worldwide for food and medicine. Seaweeds are organized into four classes: green algae (Chlorophyceae), blue-green algae (Cyanophyceae), red algae (Rodophyceae), and brown algae (Phaeophyceae). Some green algae, such as sea spaghetti, are used as food. Blue-green algae are found in both seawaters, and in fresh waters, such as the well-known edible Klamath Lake blue-green algae, *Aphanizomenon flos-aquae*. Red seaweeds include agar-agar, dulse, Irish moss and nori. Brown seaweeds include arame, hijiki, kombu and wakame, and are known for their use in Asian cuisines. Both red and brown algae are rich in polysaccharides, which are utilized for their gelling, emulsifying and stabilizing properties. Agar and carrageenan are polysaccharides extracted from red seaweeds; algin is extracted from the brown seaweed kelp.

*Ecklonia cava*, called noro-kajime in Japan, is the edible brown seaweed that serves as the source for Seanol-F. *E. cava* is used commercially as a source of hydrocolloids, such as alginate, and as a soup ingredient in Asia. It is also considered a source of iodine.

Seanol-F is a standardized complex of unique natural molecules from *E. cava*. Seanol-F contains phlorotannins, polyphenolic compounds not found in terrestrial plants but only in certain brown algal species. Phlorotannin-rich extracts of *E. cava* show significant antioxidant activities, including DPPH radical scavenging, ferric ion reduction, peroxy nitrite scavenging, and inhibition of LDL oxidation.\* As well as modulating levels of reactive oxygen species (ROS), phlorotannins may modulate levels of PGE<sub>2</sub>, cytokines and prostaglandins.\*

The phlorotannins found in *E. cava*, which include phloroglucinol, triphlorethol-A, eckol, bieckol, dieckol, and phlorofucofuroeckol (PFF), have powerful cytoprotective activity.\* Triphlorethol-A helps protect cells against radiation-induced oxidative damage by scavenging intracellular ROS.\* It also increases the activities of cellular antioxidant enzymes, including superoxide dismutase, catalase and glutathione peroxidase.\* Phloroglucinol and eckol have been shown to scavenge hydrogen peroxide and other ROS, preventing lipid peroxidation.\* They also increase catalase activity and modulate the extracellular signal-regulated kinase (ERK) pathway. The crude polyphenolic fractions (CphF) of *E. cava* have shown especially strong antioxidant activity, much higher than that of the preservatives BHA and BHT at the same concentration. They have the capacity to scavenge superoxide anions, hydrogen peroxide and hydroxyl radicals. They may have the strongest antiradical activity among natural substances.\*

Dieckol and PFF have been shown in mouse studies to increase the brain level of acetylcholine by inhibiting acetylcholinesterase, and support neurotransmitter levels, with significant benefit for brain function.\* An *in vitro* study in cultured human dermal fibroblasts has shown that *E. cava* phlorotannins may naturally support inhibition of matrix metalloproteinase (MMP) with no cytotoxic effects.\* Eckol and dieckol showed strong inhibition of both NF-kappaB and AP-1 reporter activity, which were well correlated with their abilities to inhibit MMP-1 expression.\*

Human studies show that Seanol-F supports cardiovascular function: it inhibits LDL oxidation more powerfully than the same levels of green tea catechins; it supports the body's fibrinolysis function; it supports cholesterol within normal levels; and it supports normal production of nitric

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oxide (NO) in the vascular endothelium, which supports normal blood flow.\* Other studies offer further evidence that Seanol-F compounds may optimize NO levels.\*

Seanol-F supports normal function of the nervous system, and the metabolism.\* It can increase alpha wave production, an indication of increased relaxation.\* Human studies also show that it can promote daytime wakefulness, likely due to increased blood flow and oxygenation.\* Subjects given Seanol-F fell asleep faster, slept longer and reported increased soundness of sleep.\* They felt it

increased their energy levels and improved their general condition.\*

Unlike polyphenols derived from land plants, Seanol's polyphenols are 40% oil-soluble. They can pass the blood-brain barrier, and they have a much longer metabolic half-life than that of the usual hydrophilic polyphenols: up to 12 hours vs. typically 30 minutes. Studied since 1992, in-vitro studies, animal studies, and human trials have consistently shown that Seanol compounds have amazing health promoting promise with no evidence of toxicity.\*

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### **Fibronol® Item #55790**

Serving Size: 2 Vegetarian Capsules

Servings Per Container: 75

#### **Amount Per Serving:**

Thiamine (as Thiamine Hydrochloride)	20 mg
Magnesium (as Magnesium Malate)	6 mg
<i>Ecklonia cava</i> Extract (SEANOL-F)	400 mg
Malic Acid	80 mg
Aloe vera (Leaves) Extract 200:1	60 mg

Other ingredients: Hydroxypropyl methylcellulose (capsule), cellulose, magnesium stearate.

**Suggested Use:** As a dietary supplement, 2 capsules three times daily before meals, or as directed by a healthcare practitioner.

### **FibroBoost™ Item #55910**

Serving Size: 1 Vegetarian Capsule

Servings Per Container: 75

#### **Amount Per Serving:**

<i>Ecklonia cava</i> Extract (SEANOL-F)	400 mg
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Other ingredients: Hydroxypropyl methylcellulose (capsule), cellulose, magnesium stearate.

**Suggested Use:** As a dietary supplement, 1 capsule one to three times daily before meals, or as directed by a healthcare practitioner.

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### **References**

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