



## WHAT IS IT?

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Bioperine® is a standardized extract from the fruit of *Piper nigrum L* (black pepper) or *Piper longum L* (long pepper). It contains 95 percent of piperine. Bioperine® may be co-administered with various nutrients for both human and animal health.



If you lack the one ingredient that can change the way your body looks, just go for Bioperine®. Get more for your body from this supplement.

Nature's Bioavailability Enhancing Thermonutrient

## SOURCES

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Black pepper is a common household spice. Extract from black pepper has also been used extensively as a medicine by our ancestors especially in India.



Bioperine® is an extract obtained from the black pepper fruit that is cultivated in the damp, nutrient-rich soil regions of southern India . The delicate pepper berries are harvested just prior to ripening and then sun dried to assure optimum maturity and quality. The extract of piperine, called Bioperine® in the patented form, has been clinically tested in the United States . Bioperine® significantly enhances the bioavailability of various supplement nutrients through increased absorption.

## USAGE & ADVANTAGES

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### How does Bioperine® work?



The metabolic process that generates energy at the cellular level in the human body is called thermogenesis. Though thermogenesis has been identified as a key factor in maintaining weight loss, it has also been identified as playing an integral role in utilizing the daily food and nutrients that the human body consumes. It sets in motion the mechanisms that lead to digestion and subsequent gastrointestinal absorption. Piperine, in the patented form of Bioperine® enhances the body's natural thermogenic activity - hence the term Thermonutrient®.

This enhancement may be explained as a means of increasing the thermal energy sufficient to "power up" the mechanism related to thermogenesis. This in turn results in increased metabolic processes that creates a "demand" for "supply" of a broad range of nutrients that contribute to metabolism, i.e. vitamins, minerals, herbals, amino acids, etc. It is as if Bioperine® activates a metabolic paddle wheel, of sorts, that selectively provides a more efficient mode of nutrient transportation into the blood.

### **The Advantages of Bioperin®**

Bioperine® is the only product sourced out of piperine to obtain a patented status for its ability to increase the bioavailability of nutritional compounds. Secondly, it is the only source from piperine to have undergone clinical studies in the U.S. to substantiate its safety and efficacy for nutritional use.

## **BIOAVAILABILITY ENHANCER**

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### **Bioperine® :**

**Enhances the bioavailability of nutrients**



**The nutritional materials which may be co-administered with Bioperine® are the following groups :**

- **Herbal extracts :**  
(e.g. CURCUMIN, BOSWELLIA SERRATA, ASHWAGANDHA, GINKGO BILOBA and CAPSAICIN)
- **Water-soluble vitamins :**  
(e.g. Vitamin B1, Vitamin B2, Niacinamide, Vitamin B6, Vitamin B12, Folic acid and Vitamin C)
- **Fat-soluble vitamins :**  
(e.g. Vitamin A, Vitamin D, Vitamin E, and Vitamin K)
- **Antioxidants :**  
(e.g. Vitamin A, Vitamin C, Vitamin E, alpha-carotene, beta-carotene, beta-cryptoxanthin, lycopene, lutein/zeaxanthin, pine bark bioflavonoids complex, germanium, selenium and zinc).
- **Amino acids :**  
(e.g. lysine, isoleucine, leucine, threonine, valine, tryptophan, phenylalanine, and methionine)
- **Minerals :**  
(e.g. calcium, iron, zinc, vanadium, selenium, chromium, iodine, potassium, manganese, copper and magnesium).

Due to its ability to increase the absorption of nutrients comprising nutritional supplement formulations as shown in Figures 1-4, Bioperine® has been termed a natural Thermonutrient® and bioavailability enhancer.

## **PRESS RELEASE**

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**- Sabinsa Corporation Granted Fourth Patent on Bioperine®**

**May 10, 2000 PISCATAWAY, NJ** - Sabinsa Corporation has been granted its fourth patent on\* Bioperine®, a proprietary ingredient which has been clinically shown to increase the bioavailability of nutritional supplements, thus making them more effective. US patent #6,054,585 was awarded April 25, 2000. The new patent awarded to Sabinsa is a process patent, explaining how the material is made and protecting Sabinsa's patent rights. Previous patents insured Sabinsa exclusive rights to offer piperine, the active compound in Bioperine® extracted from black pepper, regardless of its source, for use in nutritional compounds. Practically speaking, this means that no one can legally market or sell piperine for nutritional compounds except Sabinsa or its designated licensees. The only clinical studies done with piperine for nutritional purposes are with Bioperine®.

**Please contact Sabinsa Corporation for more information in New Jersey at 732-777-1111 or in Utah at 801-465-8400.**

Sabinsa Corporation is an application-oriented manufacturing and marketing company which manufactures and supplies Phytonutrients, Ayurvedic herbal extracts and specialty fine chemicals used for nutritional, pharmaceutical and food products. Sabinsa distinguishes itself by its extensive research support for its customers and products, as well as the scientific credentials of its key technical staff.

**Bioperine® is a registered trademark of the Sabinsa Corporation**

### **- Bioavailability Enhancing Phytonutrient Receives European Trademark**

**May 10, 2000 PISCATAWAY, NJ** - Sabinsa Corporation's Bioperine® trademark has been officially accepted and recognized as a trademark in Europe. Sabinsa received a Certificate of Registration 000286922 for the Bioperine® trademark that provides protection in the 15 member states of the European Union (EU).

### **- Sabinsa Corporation Nominated for Prestigious Edison Award**

**PISCATAWAY, NJ** - Sabinsa Corporation was recently nominated for the 1999 Thomas Alva Edison Patent Award in the Health & Medical category. This award is granted annually for recognizing the worldwide impact of science and technology. Sabinsa was selected based upon its patents for Bioperine®, a proprietary ingredient which enhances nutrient bioavailability and absorption.

Other finalists included Rutgers University, Union Carbide Company, Lucent Technologies, and Bell labs. A total of eight finalists were selected. The award is bestowed by the New Jersey Research & Development Council.

Commenting on the events of the evening, Sabinsa's President and CEO Dr. Muhammed Majeed noted, "Although we didn't win the award for our category, we consider ourselves winners just for being one of the finalists. We were competing against multi-billion dollar organizations and rubbing shoulders with some of the brightest research minds in the country. There were no losers here tonight."

Sabinsa Corporation, which has pioneered the introduction of several Ayurvedic herbal extracts in the US market, is an application-oriented manufacturing and marketing company which manufactures Phytonutrients, Ayurvedic herbal extracts and fine chemicals used for nutritional, pharmaceutical, cosmeceutical and food products. Sabinsa distinguishes itself by its extensive research support for its customers and products, as well as the scientific credentials of its technical staff.

## **- Sabinsa Corporation Granted Third Patent on Bioperine® Bioavailability Enhancing Phytonutrient.**

PISCATAWAY, NJ -- Sabinsa Corporation has been granted a third patent on Bioperine®, the proprietary ingredient which has been clinically shown to increase the bioavailability of nutritional supplements, thus making them more effective.

This US patent, # 5,972,382, was granted October 26, 1999. Previous patents are US patent #5,536,506, granted July 16, 1996, and US patent # 5,744,161, granted April 28, 1998.

Piperine is the active compound extracted from black pepper which is responsible for Bioperine's bioavailability enhancing properties in nutritional compounds. The patents awarded to Sabinsa grant the company the exclusive right to offer piperine, regardless of its source, for use in nutritional compounds. Practically speaking, this means that no one can legally market or sell piperine for nutritional compounds except Sabinsa or its designated licensees.

The only clinical studies done with piperine for nutritional purposes are with Bioperine®. Bioperine® is the only piperine compound clinically tested for safety and efficacy. Recent studies include a March 1999 in the Nutrition Research Journal: Piperine Increases Serum Response Of Beta-Carotene During 14 Days of Oral Beta Carotene Supplementation. Another study confirmed for publication in early 2000 will appear in the Journal of Nutritional Biochemistry on CoQ10 and Bioperine®.

Bioperine® was designed to address the problem of limited nutrient bioavailability, which may be caused by a variety of conditions such as old age, limited diet choices or a compromised gastrointestinal tract. "The usual way these conditions are compensated for involved increased dosage. Bioperine® provides an alternative method for improving nutritional status by increasing the amount of nutrients absorbed by the body." There are a number of companies offering finished products that include Bioperine®. Sabinsa requires that a licensing agreement be executed with each marketing company prior to selling Bioperine®, and that the ingredient logo appear on the label to help consumers identify products containing Bioperine®.

In other related news, Sabinsa was recently nominated by the New Jersey R&D Council as one of three finalists for the prestigious Thomas Alva Edison Patent Award in the Health & Medical category. This award is granted annually to recognize the worldwide impact of science and technology. Sabinsa was selected based upon its patents for the use of Bioperine®.

Sabinsa Corporation is an application-oriented manufacturing and marketing company which manufactures and supplies Phytonutrients, Ayurvedic herbal extracts and specialty fine chemicals used for nutritional, pharmaceutical and food products. Sabinsa distinguishes itself by its extensive research support for its customers and products, as well as the scientific credentials of its key technical staff.

## **- Sabinsa Corporation's Dr. Majeed & Dr. Badmaev Publish Peer-Reviewed article in Nutrition research magazine**

January 29, 1999 PISCATAWAY, NJ - Sabinsa Corporation's founder Muhammed Majeed, PhD and Vice President of Scientific and Medical Affairs, Vladimir Badmaev, MD, PhD., have authored an article to appear in the peer-reviewed journal, Nutrition Research.

The article, "Piperine, an alkaloid derived from black pepper increases serum response of beta-carotene during 14 days of oral beta-carotene supplementation" to appear in Vol.19 No.3, (March 1999 pages 385-392) issue details the clinical study involving Bioperine® and Beta-Carotene. Bioperine® is a multi-patented ingredient from Sabinsa Corporation, standardized for a minimum 98% piperine from the fruits of the Piper nigrum plant (black pepper). Bioperine® has been shown to increase the bioavailability of other supplements in separate clinical studies also.

Sabinsa Corporation is an application-oriented manufacturing and marketing company which manufactures and supplies quality assured phytonutrients, standardized herbal extracts and specialty fine chemicals used for nutritional, pharmaceutical and food products. Sabinsa distinguishes itself by its extensive research support for its customers and products, as well as the scientific credentials of its key staff.

### **- October 28, 1995 Sabinsa Corporation's founder Receives President's Award in New Delhi, India**

**NEW DELHI, INDIA** - Dr. Muhammed Majeed, founder, President and CEO of Sabinsa Corporation received the President's Award for Quality and Innovation from Dr. Shankar Dayal Sharma, President of India on October 11, 1995. Sabinsa's research and manufacturing facility located in India was named company of the year.

"Dr. Majeed, your contributions ... are appreciated as a mechanism for human resource development and as an agent of change," said Dr. Sharma in presenting the award. "I hope that this award will inspire you to further achievements in the years ahead."

The company was selected because of its innovative practices, specifically for implementing the manufacturing process of L-Selenomethionine, making it one of only two companies in the world to manufacture this unique and safe form of selenium. The company was also cited for its development of Citrin®, the first standardized Garcinia extract in the world, and Bioperine®, which has been shown in clinical testing to improve absorption of essential nutrients with which it is formulated.

### **- Sabinsa Obtains emergency injunction against Alchem International in Patent Infringement case at Supplside East**

**Secaucus, NJ** - For the first time, a foreign company engaging in alleged Intellectual Property (IP) theft at a dietary supplements industry trade show has been stopped in its tracks.

Sabinsa Corporation, known for vigorously protecting its IP, obtained an emergency injunction from the United States District Court against Alchem International, Ltd. when it was observed that the company was offering to sell products which infringed upon two of Sabinsa's patented ingredients, ForsLean and Bioperine, at SupplySide East in Secaucus NJ.

According to Mark C. Sysler, Sabinsa's Sr. EVP for Marketing and Sales, defending a company's Intellectual Property against some foreign patent infringers is a struggle. These companies will attend or exhibit at a trade show, offer to sell ingredients that are protected by a US patent, and leave the country before action can be taken by the patent holder. They then follow up on those leads from overseas and it is difficult to pursue legal action against them.

In this case, Sysler went before US district Judge Pisano on Tuesday May 6, 2003, just after the trade show opened. The judge issued a temporary order restraining Alchem from "1. Infringing Sabinsa 's United States patent no. 5,804,596 either directly, contributorily or by inducement, by importing, using, making, selling or offering to sell any coleus forskohlii extract in a concentration of 3% or greater, specifically including any sale, advertising, promotion, display or mention of the products at the Supply Side East trade show presently taking place at the Meadowlands Exposition center in Secaucus New Jersey and

2. from infringing Sabinsa 's United States patent no. 5,972,382 either directly, contributorily or by inducement, by importing, using, making, selling or offering to sell any piperine extract from black pepper in any concentration, specifically including any sale, advertising, promotion, display or mention of the products at the Supply Side East trade show presently taking place at the Meadowlands Exposition center in Secaucus New Jersey."

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