

# Lion's Mane Extract 8:1

Code: FE1868 – 60 vegetable capsules



Supplement based on the pure, high-strength (8:1) extract of the medicinal mushroom *Hericium erinaceus*, highly valued for its activity on the nervous system through its regulating effect on the myelination process, which is altered in neurodegenerative diseases (loss of mental faculties).

This mushroom stands out for its high content of proteins and important minerals such as selenium, germanium and zinc, and all of the essential amino acids and polysaccharides that modulate the immune system and have an anti-tumour effect. The synergy of multiple active principles present in the mushroom is what gives it its special curative properties.

The method of polysaccharide extraction is a critical point that determines the concentration and efficacy of the product. Our extract is obtained through a validated extraction process in hot water which concentrates, guarantees and preserves the active compounds, leading to a higher final concentration of polysaccharides. Mycelium contains polysaccharides that are bound to the cell walls of chitin, which is indigestible in the gastrointestinal tract. Chitin must be dissolved in hot water in order to release the polysaccharides and guarantee a high polysaccharide content as well as greater bioavailability. The extract is standardized to 40% polysaccharide content.

The mushrooms used for our formulation have been cultivated in greenhouses under climate controlled conditions and are free of heavy metals, herbicides and pesticides in order to guarantee the purity and strength of the extract.

**Ingredients:** Lion's mane extract (*Hericium erinaceus*), anticaking agents (magnesium salts of fatty acids and silicon dioxide), vegetable capsule (glazing agent: hydroxypropylmethylcellulose; purified water).

#### Nutritional information:

1 capsule  
(628 mg)

Lion's mane (*Hericium erinaceus*)

(40% polysaccharides, providing 35% beta-glucans) (8:1)\*

500 mg

\*Standardized extract. Hot-water extraction.

#### Size and format:

60 vegetable capsules.

#### Recommended daily dose:

1 capsule daily.

Do not exceed the stated recommended daily dose.

#### Indications and uses:

Neurological diseases (dementia, multiple sclerosis and neuropathy) and cognitive decline (mental reinforcement, memory).

It regenerates the intestinal mucosa (gastritis, gastroesophageal reflux, gastric ulcer, Crohn's disease, among others).

It amplifies immune response, reinforcing innate response, especially in cancers of the stomach, colon and pancreas.

It has powerful antibacterial activity, especially against MRSA, *Helicobacter pylori*, etc.

#### Cautions:

Consult a health-care practitioner if you are pregnant or breast-feeding.

**LION'S MANE:** Lion's mane is a mushroom with a unique aspect that grows in dead trees. Unlike common varieties of mushrooms, lion's mane has long white threads that give it the look of a mane or beard.

Lion's mane is well known in the Orient for its regenerative and restorative effects on cognition and the nervous system, as well as its immune-modulating function. This mushroom has great therapeutic potential, as it protects and regenerates both the gastrointestinal mucosa and the myelin sheaths that line nerve cells.

It is mainly composed of cyanthane derivatives, polysaccharides, beta-glucans, ergosterol (pro-vitamin D), erinacine and hericenone. Like many medicinal mushrooms, it's a natural source of beta-glucans which are responsible for its anti-tumour potential, and have immune-modulating, lipid-lowering, antioxidant and neuroprotective activity.

Erinacines and hericenones have the ability to cross the blood-brain barrier and stimulate the production of nerve growth factor (NGF), a soluble protein that promotes the growth of nerve cells and neuron survival, necessary for the development and function of the nervous system. These compounds stimulate the production of new neurons and protect against

neuron death, useful for treating different types of dementia such as Alzheimer's or cognitive decline, multiple sclerosis, Parkinson's and neuropathy <sup>(1-2)</sup>.

In patients with multiple sclerosis, lion's mane helps with myelin regeneration (myelinisation), the insulation that protects neurons and allows for intact nerve transmission in "in vitro" studies <sup>(3-4)</sup>.

It stimulates nerve growth factor (NGF) which plays an important role in neuropathy <sup>(5)</sup>. In animals, it has a protective effect for diabetic neuropathy <sup>(6)</sup>. It also improves recovery in rodents with damaged peroneal nerve <sup>(7)</sup>.

Lion's mane has shown activity against methicillin-resistant *Staphylococcus aureus* (MRSA), responsible for many nosocomial infections (contracted at hospital) <sup>(8)</sup>.

*Hericium erinaceus* has been extensively studied in China for digestion and gastric ulcers because of its excellent regenerative capacity in the gastrointestinal mucosa, making it valuable for all disorders related to intestinal hyperpermeability such as gastritis, gastroesophageal reflux and gastric ulcers. It also inhibits the activity of *Helicobacter pylori* <sup>(9-10)</sup>. Studies carried out also show the mushroom's positive effect on ulcerative colitis, Crohn's disease and cancers of the stomach, colon and pancreas <sup>(11-12)</sup>. Its fibre is only metabolized by bacteria living in the intestine, so it stimulates proper development of intestinal flora, exerting a prebiotic effect, important for good intestinal function. It also stimulates macrophage production, the cells that reduce the invasion of pathogens through their antibacterial activity <sup>(11)</sup>.

It strengthens apoptosis induced by doxorubicin in hepatocarcinoma cells <sup>(13)</sup>. Its extracts have been shown to decrease the growth of several types of tumours both "in vitro" and "in vivo", due to its anti-tumour and immune-stimulating properties. <sup>(14-16)</sup>

## References:

- 1) Kawagishi, Hirokazu, Cun Zhuang, and Ellen Shnidman. "The anti-dementia effect of Lion's Mane mushroom (*Hericium erinaceum*) and its clinical application." *Townsend letter for doctors and Patients* 249 (2004): 54-57.
- 2) Mori, Koichiro, et al. "Improving effects of the mushroom Yamabushitake (*Hericium erinaceus*) on mild cognitive impairment: a double-blind placebo-controlled clinical trial." *Phytotherapy Research* 23.3 (2009): 367-372.
- 3) Kolotushkina, E. V., et al. "The influence of *Hericium erinaceus* extract on myelination process in vitro." *Fiziol Zh* 49.1 (2003): 38-45.
- 4) Grygansky, Andriy P., Mykhaylo Moldavan, and Olena V. Kolotushkina. "*Hericium erinaceus* (Bull.: Fr.) Pers. extract effect on nerve cells." *International Journal of Medicinal Mushrooms* 3.2-3 (2001).
- 5) Mori, Koichiro, et al. "Nerve growth factor-inducing activity of *Hericium erinaceus* in 1321N1 human astrocytoma cells." *Biological and Pharmaceutical Bulletin* 31.9 (2008): 1727-1732.
- 6) Yi, Zhang, et al. "Protective effect of ethanol extracts of *Hericium erinaceus* on alloxan-induced diabetic neuropathic pain in rats." *Evidence-Based Complementary and Alternative Medicine* 2015 (2015).
- 7) Wong, Kah-Hui, et al. "Neuroregenerative potential of lion's mane mushroom, *Hericium erinaceus* (Bull.: Fr.) Pers.(higher Basidiomycetes), in the treatment of peripheral nerve injury." *International journal of medicinal mushrooms* 14.5 (2012).
- 8) Kawagishi, Hirokazu. "Anti-MRSA Compounds from *Hericium erinaceus* (Bull.: Fr.) Pers." *International Journal of Medicinal Mushrooms* 7.3 (2005).
- 9) Shang, Xiaodong, et al. "In vitro anti-*Helicobacter pylori* effects of medicinal mushroom extracts, with special emphasis on the Lion's Mane mushroom, *Hericium erinaceus* (higher Basidiomycetes)." *International journal of medicinal mushrooms* 15.2 (2013).
- 10) Zhu, Yang, et al. "Preparation, characterization, and anti-*Helicobacter pylori* activity of Bi 3+-*Hericium erinaceus* polysaccharide complex." *Carbohydrate polymers* 110 (2014): 231-237.
- 11) Xu, C. P., et al. "A double-blind study of effectiveness of *Hericium erinaceus* pers therapy on chronic atrophic gastritis. A preliminary report." *Chinese medical journal* 98.6 (1985): 455.
- 12) Wong, Jing-Yang, et al. "Gastroprotective effects of Lion's Mane mushroom *Hericium erinaceus* (Bull.: Fr.) Pers.(Aphyllphoromycetideae) extract against ethanol-induced ulcer in rats." *Evidence-Based Complementary and Alternative Medicine* 2013 (2013).
- 13) Lee, Jong Seok, and Eock Kee Hong. "*Hericium erinaceus* enhances doxorubicin-induced apoptosis in human hepatocellular carcinoma cells." *Cancer letters* 297.2 (2010): 144-154.
- 14) Mizuno, Takashi, et al. "Antitumor-active polysaccharides isolated from the fruiting body of *Hericium erinaceum*, an edible and medicinal mushroom called yamabushitake or houtou." *Bioscience, Biotechnology, and Biochemistry* 56.2 (1992): 347-348.
- 15) Wang, Jinn-Chyi, et al. "Antitumor and immunoenhancing activities of polysaccharide from culture broth of *Hericium* spp." *The Kaohsiung journal of medical sciences* 17.9 (2001): 461-467.
- 16) Li, Guang, et al. "Anticancer potential of *Hericium erinaceus* extracts against human gastrointestinal cancers." *Journal of ethnopharmacology* 153.2 (2014): 521-530.