



Mycology Research Laboratories

Global Leaders in
Mushroom Nutrition

High quality mycological products by: Mycology Research Laboratories

Proven Effective

For more than 3000 years the Chinese and Japanese have been using mushrooms such as Coriolus for immune support and for improving health and overall quality of life. These mushrooms are famous their strong anti-oxidative, detoxifying and immune modulating properties.



Coriolus Versicolor

High quality production process

MRL utilises proprietary Japanese production technology to cultivate selected strains of the different mushrooms in California. The strains have been selected for their overall bioactivity and for their stability (purity). The cultivation process is in accordance with the California Organic Food Act of 1990 and the EU organic regulation (EEC 2092/91)

These mushroom nutrition products are not extracts, but instead contain both the mycelium and primordia (young fruitbody) of the mushroom cultivated into a biomass on an edible, sterile (autoclaved substrate). The cultivation process ensures that the biomass is free from contamination by other fungi or bacteria and that heavy metals (pesticides) are not present.

Following cultivation, the biomass is dried, powdered and tableted to HACCP Food Grade standards.



Label Coriolus-MRL 90 tablets 500 mg

- Synergetic functioning of the content substances: contains the complete mushroom unlike an extract.
- Biological and GMP certified production, therefore 100% safe and reliable

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 Mycology Research Laboratories



Coriolus versicolor

Very potent mushroom used for long-term support of the immune system. In studies it has been shown that Coriolus supplementation increases Natural Killer Cell activity



Cordyceps sinensis

Cordyceps is considered traditionally in China as an excellent tonic for exhaustion and weakness. Very suitable for overall energy support.



Ganoderma lucidum (Reishi)

Wellknown in China as the 'Mushroom of Immortality'
Widely used in the East as an energy promoting tonic.



Grifola frondosa (Maitake)

As well as Coriolus, studies have shown that Maitake has Natural Killer Cell activity promoting properties. Studies also show that Maitake appears to have weight reducing properties.



33% Reishi / 33% Cordyceps / 33% Shiitake

A Multi-Mushroom supplement existing from three equal parts:
Reishi, Shiitake and Cordyceps. Three of the most powerful mushrooms used in Traditional Chinese Medicine.



Agaricus blazei

Agaricus is particularly known because of its high enzyme concentrations. It is very rich in: Superoxide Distmutase (SOD). For this reason this product may be suitable as a nutritional supplement to slow down the ageing process.





Coriolus-MRL (*Coriolus versicolor*)

90 tablets 500mg
250 gram powder



Cordyceps-MRL (*Cordyceps sinensis*)

90 tablets 500mg
250 gram powder



Reishi-MRL (*Ganoderma lucidum*)

90 tablets 500mg
250 gram powder



Maitake-MRL (*Grifola frondosa*)

90 tablets 500mg
250 gram powder



Triton-MRL (33% Reishi / 33% Cordyceps / 33% Shiitake)

90 tablets 500mg
250 gram powder



Blazei-MRL (*Agaricus blazei*)

90 tablets 500mg
250 gram powder





Hericium erinaceus

From research it becomes clear that Hericium promotes the Nerve-Growth-Factor (NGF) synthesis. Valuable support for prevention of neurodegenerative disorders



Auricularia auricula

Polysaccharides in Auricularia stimulate the DNA and RNA synthesis in *in vitro*. Moreover Auricularia offers support for healthy cholesterol levels.



Lentinula edodes (Shiitake)

Lentinula or Shiitake has been widely used for centuries as a foodstuff because of its excellent nutritional value. The mycelium contains 30 enzymes and more than 10 amino acids. It is mainly used for immune support.



Poria cocos

Poria is frequently used in Traditional Chinese Medicine. This mushroom contains a very wide variety of polysaccharides.



Polyporus umbellatus

The polysaccharides in Polyporus have a very favourable functioning on the health of the liver. The mushroom offers support at possible liver problems.



Pleurotus ostreatus

Pleurotus contains among other things, a broad range of amino acids as well as vitamins B1, B2, B5, B6, and B7. Pleurotus is an excellent 'blood builder' because of its high iron content.





Hericium-MRL (*Hericium erinaceus*)

90 tablets 500mg
250 gram powder



Auricularia-MRL (*Auricularia auricula*)

250 gram powder



Shiitake-MRL (*Lentinula edodes*)

90 tablets 500mg
250 gram powder



Poria-MRL (*Poria cocos*)

250 gram powder



Polyporus-MRL (*Polyporus umbellatus*)

90 tablets 500mg
250 gram powder



Pleurotus-MRL (*Pleurotus ostreatus*)

90 tablets 500mg
250 gram powder





A. *Coriolus versicolor*-Long term support of the immune system.

- 1.Kidd P. M., "The Use of Mushroom Glucans and Proteoglycans in Cancer Treatment"- Altern. Med. Med. Rev., 5 (1):4-27; 2000.
- 2.Monro, J. , "Coriolus: Chronic Fatigue Immune Dysfunction Syndrome, Journal of Integrative Medicine", 8:101-108 , 2004.
- 3.Monro J." Treatment of Cancer with Mushroom Products"" Archives of Environmental Health, August 2003 (Vol. 58 (no.8)).

B. *Cordyceps sinensis*-Long term support of the liver function.

- 1.Santos, C.; "Hepato-protective Effect of Cordyceps sinensis in Cases of Liver Damage " Centro Regional de Alcoologia de Lisboa (CRAL), Hospital de Julio de Matos, Lisbon, Portugal; Mycology News, vol.1: Edition 9; Sept. 2004.
- 2.Liu YK e Shen W. "Inhibitive Effect of Cordyceps sinensis on Experimental Hepatic Fibrosis and its Possible Mechanism", Department of Gastroenterology, the Second Affiliated Hospital, Chongqing University of Medical Sciences, World J Gastroenterol., Mar. 9(3):529-33. PMID: 12632512 (PubMed - indexed for MEDLINE), 2003.
- 3.Zhang X, Liu YK, Shen W, Shen DM. "Dynamical Influence of Cordyceps sinensis on the Activity of Hepatic Insulinase of Experimental Liver Cirrhosis"- Hepatobiliary Pancreat Dis. Int. Beb;3(1):99-101. PMID: 14969848 (PubMed-in process),
- 4.Gong, HY, Wang KQ, Tang SG; "Effects of Cordyceps sinensis on T lymphocyte subsets and hepatofibrosis in patients with chronic hepatitis B"; Department of Infectious Disease, Third Affiliated Hospital, Human Med University, Changsha 410013; Human Yi Ke Da Xue Bao, 28;25 (3): 248-250, June 2000.
- 5.Greenhaff, Paul L. "Pilot Study to Investigate the Changes in Metabolic and Physiological Parameters using Cordyceps sinensis supplementation (3 grams per day) in a double blind, randomized format"; Download from: Mycology Research Laboratories Ltd website |www.mycologyresearch.com
- 6.Newton, C., "Effect of aqueous extract of Cordyceps sinensis on HepG2 liver cancer cells" Cytogenex Ltd, 121 Westbourne Avenue, Kingston-upon-Hull, East Yorkshire, HU5 3HU; Presented at the 5th International Symposium on Mushroom Nutrition, University of Westminster, London, England; June 14th, 2003 and published in Mycology News, vol.1, Edition 9; Sept. 2004.

C. *Ganoderma lucidum* (Reishi)-to reduce side-effects associated with hayfever.

- 1.Powell, M "The use of Ganoderma lucidum (Reishi) in the management of histamine-mediated allergic responses" Nutrition Practitioner October 2004. and published in Mycology News, vol 1, Edition 8; February 2004.

D. *Grifola frondosa* (Maitake)-Short term support of the immune system and diabetes Type 2.

- 1.Kubo K, et al "Anti-diabetic activity present in the fruit body of Grifola frondosa (Maitake)" I Biol Pharm Bull 1994;17 (8):1106-1110.
- 2.Konno S., et al "A possible hypoglycaemic effect of maitake mushroom on Type 2 diabetic patients" Diabetic Medicine, Volume 18, Issue 12, Page 1010-December 2001.
- 3.Horio H, et al "Maitake (*Grifola frondosa*) improve glucose tolerance of experimental diabetic rats" J Nutr Sci Vitaminol (Tokyo) 2001 Feb;47(1):57-63.

E. *Agaricus blazei*- Used to reduce the side-effects associated with chemotherapy by reducing the reactive oxygen species level caused by chemotherapy. Used in conjunction with *Coriolus versicolor*.

- 1.Karmali, K "Agaricus blazei:New Developments in Mushroom Nutrition" Mycology News 10 Vol (1), Edition (10)-August, 2005.

F. *Auricularia auricular*-Reduction in cholesterol

- 1.The hypocholesterolemic effect of two edible mushrooms:*Auricularia auricular* (tree-ear) and *Tremella fuciformis* (white jelly-leaf) in hypercholesterolemic rats. Peter C.K. Cheung Ph.D, Nutrition Research Volume 16, Issue 10, October 1996, Pages 1721-1725.



G. Polyporus umbellatus-Support liver function

1. Effect of *Polyporus umbellatus* polysaccharide on function of macrophages in the peritoneal cavities of mice with liver lesions. Zhang YU; Liu YL; Yan SC. *Chung His I Chieh Ho Tsa Chih* 1991 Apr;11(4):225-6, 198.
2. Combined effects of chuling (*Polyporus umbellatus*) extract and mitomycin C on experimental liver cancer. You JS; Hau DM; Chen KT; Huang HF. *Am J Chin Med* 1994;22(1):19-28.

H. Pleurotus ostreatus-Reduction in cholesterol

1. Effect of oyster mushroom (*Pleurotus ostreatus*) and its ethanolic extract in diet on absorption and turnover of cholesterol in hypercholesterolemic rats. Bobek P. Ozdin L., Kuniak L. *Nahrung* 1996 Aug 40(4):222-4.
2. Sepcic K et al, "Interaction of ostreolysin, a cytolytic protein from the edible mushroom *Pleurotus ostreatus*, with lipid membranes and modulation by lysophospholipids" *Eur J Biochem.* 270, 1199-1210 (2003)
3. Marzullo L, et al "Veratryl Alcohol Oxidase from *Pleurotus ostreatus* participates in lignin Biodegradation and Prevents Polymerization of Laccase-oxidized Substrates" Volume 270, Number 8, Issue of February 24, 1995 pp. 3823-3827. The American Society for Biochemistry and Molecular Biology, Inc.
4. Tomita, T, et al "Pleurotolysin, a Novel Sphingomyelin-specific two-component Cytolysin from the Edible Mushroom *Pleurotus ostreatus*, assembles into a Transmembrane Pore Complex *J. Biol. Chem.*, June 25 2004; 279(26):26975-26982.

I. Lentinula edodes-Support immune system

1. de Lima P.L.A., et al "Lentinula edodes (Berk.) Pegler (Shiitake) modulates genotoxic and mutagenic effects induced by alkylating agents in vivo. *Mutation Research/ Genetic Toxicology and Environmental Mutagenesis*, Volume 496, Number 20th September 2001, pp. 23-32(10).

J. Poria cocos-Management of skin pathologies involving chronic inflammation

1. Fuchs, S et al. "Assessment of anti-inflammatory activity of *Poria cocos* in sodium lauryl sulphate-induced irritant contact dermatitis". *Skin Research and Technology*, Volume 12, Number 4, November 2006, Pages 223-227(5).
2. Yasukawa K, et al "Hydroxybenzoyldehydrothumulosic acid from *Poria cocos*, and its anti-inflammatory effect" *Phytochemistry*, Volume 48, n Number 8, August 1998, pp. 1357-1360(4).

K. Hericium erinaceus-Stimulates nerve-growth (NGF) factor synthesis that is important support against neurodegenerative disease

1. Nagi K et al. "Dilinoleoyl-1-phosphatidylethanolamine from *Hericium erinaceum* protects against ER stress-dependent Neuro2a cell death via protein kinase C pathway" *The Journal of Nutritional Biochemistry*, Volume 17, Issue 8, Pages 525-530.
2. Kenmoku H. et al "Erinacine Q, a new erinacine from *Hericium erinaceum*, and its biosynthetic route to erinacine C in the basidiomycete" *Biosci Biotechnol Biochem.* 2002 Mar;66(3):571-5.





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About Mycology Research Laboratories

Mycology Research Laboratories Ltd. (MRL) has an extensive library of proprietary mushrooms strains (which ensures the correct species and variety) to give you confidence in the identity of the mushrooms.

MRL utilizes proprietary production technology to cultivate selected strains of the different mushrooms in California. The strains have been selected for their overall bioactivity and for their vigour. The cultivation process is in accordance with both the California Organic Food Act of 1990 and the EU organic regulation (EEC 2092/91).

These mushroom nutrition products are not extracts, but instead contain both the mycelia and primordia (young fruit-body) of the mushroom cultivated into a biomass in an edible, sterilized substrate. The cultivation process ensures that the biomass is free from contamination by other fungi or bacteria, heavy metals and pesticides.

Following cultivation, the biomass is dried, powdered and tableted to HACCP Food Grade standards in the Netherlands and in the United States. All mushroom strains are available in both 500mg tablet and 250 g powder presentations.

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