

ABMPRIME™

AGARICUS BLAZEI MURRILL, A SCIENTIFICALLY STUDIED MUSHROOM CLINICALLY SHOWN TO ENHANCE IMMUNE FUNCTIONS

WHAT IS AGARICUS BLAZEI MURRILL?

Agaricus blazei Murrill (ABM), popularly known as 'Cogumelo do Sol' in Brazil, or 'Himematsutake' in Japan, is a mushroom native to Brazil, and widely cultivated in Japan for its medicinal uses, so it is now considered as one of the most important edible and culinary-medicinal biotechnological species. It was first identified by Dr. Takatoshi Furumoto, who noticed that local inhabitants were statistically healthier. Further study by other researchers such as Dr. Shobo Shibata and Dr. Tetsuo Ikegawa revealed the modes of action for this amazing mushroom.

WHY AGARICUS BLAZEI MURRILL?

ABM was first introduced to Japan due to its alleged health benefits and is also widely used today as an edible mushroom, considered a functional food, and as a natural therapy in the form of a medicinal extract.

ABMPRIME™

NuLiv Science provides both a fruiting body and a mycelium version of ABMPRIME™ by either a proprietary water fermentation or extraction process. Our ABMPRIME™ is guaranteed to 40% polysaccharides. We also test for heavy metals, pesticides, and residue to ensure the highest quality for our clients.

BENEFITS*

- May support immune functions
- Provides a solid foundation to shield against bacteria and viruses
- May foster stress alleviation
- May assist in warding off circulatory issues and indigestion experiences

APPLICATIONS

Immune support	Overall health & wellness support
Diabetes	Stress
High cholesterol	Circulatory support

*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.

PRODUCT PROPERTIES

- Composition: a proprietary water fermentation or extraction process
- Marker compounds: Total Polysaccharide > 40%
- Solubility: insoluble in water
- Color: brown to yellow
- Odor: slightly earthy
- Taste: slightly earthy
- Appearance: fine granular powder
- Dose: up to 1,000mg
- Shelf life: 36 months
- Preservative: none
- Pesticide & herbicide residues: No more than detection limits

ENHANCES IMMUNE FUNCTIONS AND PROMOTES NORMAL CELL GROWTH

Studies ^(1,2,6) have demonstrated cytotoxic action on tumor cells and indirect immuno-potentiating activities (Graph 1).

Many *in-vitro* studies indicate ABM has the potential to activate and modulate the immune systems against abnormal cell growth. Key research studies have pointed to exciting areas of interest for ABMPRIME™:

- stimulating macrophage cell to secrete cytokines, such as TNF-gamma, IL-6, IL-8 ^(3,4) (graph 2);
- augmenting antibody production ⁽⁴⁾ (graph 3);
- inhibiting angiogenesis induced by abnormal cell growth ⁽⁵⁾ (graph 4);
- activating NK cells as well as inducing apoptosis of tumor cells ⁽⁶⁾ (graph 5);
- increasing the number of activated lymphocytes with CD25, B7 and Mac-1 antigens expressed ^(4,7) (graph 6);
- potential antimutagenic properties by repairing or preventing DNA damage ^(8,9,10)



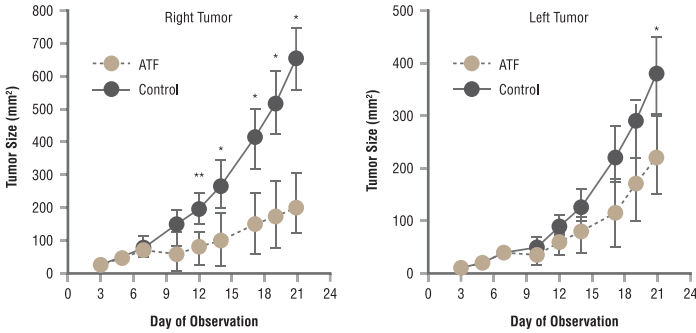
ENHANCES IMMUNE FUNCTIONS AND PROMOTES NORMAL CELL GROWTH

Animal studies (1,2,6) have demonstrated cytotoxic action on tumor cells and indirect immuno-potentiating activities (Graph 1).

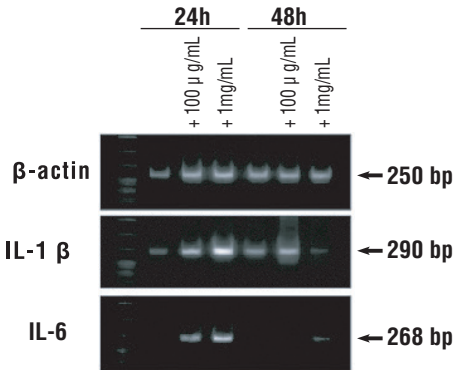
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- augmenting antibody production (4) (graph 3);
- inhibiting angiogenesis induced by abnormal cell growth (5) (graph 4);
- activating NK cells as well as inducing apoptosis of tumor cells (6) (graph 5);
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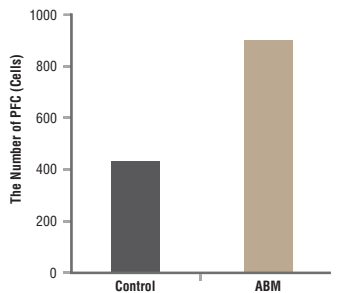
1. The effect of ABM on tumor size



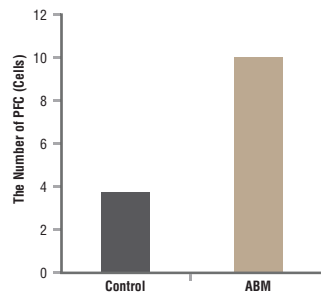
2. Effects of ABM on expression of IL-1-beta and IL-6 mRNA in macrophages



3. Effects of ABM extracts on the number of PFC cells



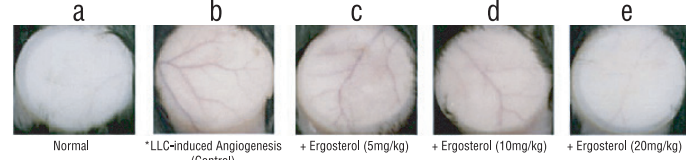
Effects of ABM extracts on the number of PFC cells



a) The number of *PFC per 10⁶ spleen cells

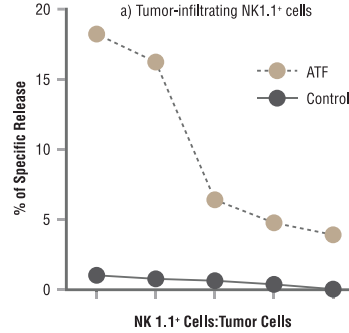
b) The number of *PFC per spleen

4. Effects of ABM on tumor neovascularization



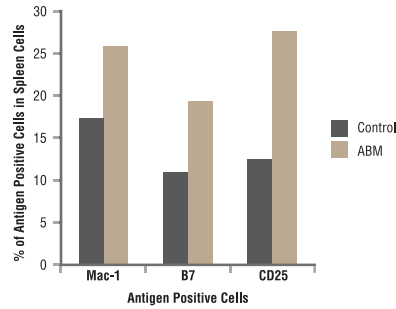
The formation of new blood vessels in the subcutaneous region was photographed.
*LLC: Lewis Lung Carcinoma; Ergosterol is extracted from ABM

5. Tumoricidal activity of NK 1.1+ cells in tumor bearing mice



Chromium⁵¹ labeled tumor cells are killed by NK 1.1+ cells releasing Chromium⁵¹ labeled proteins

6. The percentage of Mac-1, B7 and CD25 positive cells in ABM-treated mice and controls



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ABMPRIME™

Developed by

NuLiv Science

255 Paseo Tesoro, Walnut, CA 91789 USA
Tel: (909) 594-3188 Fax: (909) 594-3184

www.nulivscience.com