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## The Possible Benefits of Imm-Kine®, a Dietary Supplement

- Helps support both humoral and cellular immune responses\*
  - Helps stimulate enhanced macrophage activity\*
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## Description

Imm-Kine® provides nutritional support for the immune system.\* Imm-Kine® contains Muramyl polysaccharide glycan complex (MPGC), a purified and non-toxic bacterial cell wall extract of gram-positive *Lactobacillus fermentum*, and beta-1, 3-glucan. Research suggests that Imm-Kine® may have a stimulatory effect on the immune system, increase the production of interleukins 1, 6 and 12, and stimulate human lymphocyte proliferation.\*

Research has shown that some polysaccharide components of various plants and bacteria can enhance the body's immune response.\* The health promoting effects of various mushrooms such as Reishi, Cordyceps, Maitake, and Shiitake, used through the millennia in Eastern medicine, are thought to involve their content of beta-glucans.\* Recently, similar immunologically potent polysaccharides have been identified in the cell walls of various bacteria.\* Some have suggested that this ability of bacterial cell wall components to enhance the immune response may be partially responsible for the health benefits of probiotic bacteria, such as Bifidobacterium, *Lactobacillus casei* and *Lactobacillus acidophilus*.\*

Many scientific studies have demonstrated the efficacy of muramyl compounds such as MPGC in stimulating the immune system.\* For instance, another immune stimulating bacterial cell wall analog, muramyl tripeptide phosphatidylethanolamine, improved Kupffer cell function and protected cells in an animal model. Muramyl compound immuno-stimulators, natural and synthetic, can activate macrophages, thereby supporting the immune system.\*

MPGC contains muramic acid moieties attached to variable-length mannose-rich polysaccharides. The mannose-rich polysaccharides can promote internalization of the muramic acid-containing complex. Once internalized, the muramic acid moieties of the MPGC may promote activation of macrophages.\* MPGC also appears to increase human lymphocyte proliferation, and the production of human antigen-presenting dendritic cells in vitro.\*

Imm-Kine® combines the immune stimulant MPGC with beta-1,3-glucan, to provide a broad-spectrum immune enhancing supplement.\*

\*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.

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Serving Size: 2 Capsules

Servings Per Container: 30

**Amount Per Serving:**

<i>Lactobacillus fermentum</i> Extract	500 mg
Beta-1,3-glucan (from <i>Saccharomyces cerevisiae</i> )	100 mg
Vitamin C (as Ascorbyl Palmitate)	21 mg

Other ingredients: Gelatin, rice flour.

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

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**References**

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