

Imm-Kine®

Immune Stimulation Formula*



Not only can Imm-Kine® boost your immune system, it can also help increase athletic performance and aid post work-out healing. When microtrauma occurs secondary to athletic stress on the muscles, several cytokines like IL-1, IL-6, TNF are produced and released by muscle cells. Active constituents in Imm-Kine® have been shown to indirectly increase the natural levels of certain cytokines, which can help speed-up post workout recovery time.

Product Summary: Muramyl peptides are fragments of peptidoglycan from the cell walls of bacteria. The immune system recognizes that muramyl peptides (containing two or more muramic acid groups) are products of bacteria and responds by becoming activated to resist infection. This resistance to infection is nonspecific, and extends to unrelated species of bacteria, fungi and viruses. A key mechanism of the resistance to infection is the activation of macrophages. Macrophage activation results in increased production of microbicidal oxygen radicals such as superoxide and peroxide, and increased secretion of inflammatory cytokines. These physiological responses also aid in combating infection. Muramyl peptides activate macrophages and other cells of the immune system. Muramyl peptides and similar agents will become more important in the future due to increasing resistance of microbes to antibiotics, and increasing numbers of patients with immunodeficiencies.

Muramyl polysaccharide-glycan complex (MPGC), a non-toxic bacterial cell wall extract contains muramic acid moieties attached to variable-length mannose-rich polysaccharides. The mannose-rich polysaccharides promote internalization of the entire muramic acid-containing complex. Once internalized, the muramic acid moieties of the MPGC activate the macrophages. MPGC has also been shown to increase human lymphocyte proliferation, and significantly increase the production of human antigen-presenting dendritic cells in vitro.



BACTERIAL DNA activates macrophages and activates dendritic cells and promotes priming and differentiation of CD8+ T cells.*

BETA 1,3-GLUCAN is a well-known, non-specific immune stimulant derived from the cell walls of fungi.*

Imm-Kine® is a new dietary supplement that combines the new immune stimulant MPGC with beta 1-3-glucan, and bacterial DNA to provide a broad-spectrum immune enhancing supplement.*

Each Capsule Includes:

- Lactobacillus fermentum* Extract 250 mg
- Beta 1, 3 glucan50 mg
(from *Saccharomyces cerevisiae*)

Form: 60 Capsule Bottle Dietary Supplement

Suggested Intake: Take 2 - 6 capsules daily or as directed by a health care professional.

Caution: Not intended for use by pregnant or lactating women. Seek the advice of a health care professional before using this product.

*These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure or prevent any disease.