Max Defense™

PureCell™

Clinical Applications

- Maintain Healthy Intestinal Microecology
- Support Balance of Healthy Flora During/ Post-Antibiotic Therapy
- Support the Natural Immune Response
- Support Bowel Regularity
- Improve Lactose Tolerance

Max Defense™ is a dairy-free, vegetarian, gluten-free, four-strain probiotic totaling 100 billion CFU per vegetable capsule. Each strain has proven safety, acid and bile resistance, adherence to the human intestinal mucosa, and resiliency to survive and remain active in the gastrointestinal tract. Clinically proven health benefits include improvement of natural and acquired immune response and enhancement of the gastrointestinal environment.

All New Medicine Foundation® Formulas Meet or Exceed cGMP quality Standards

Discussion

HOWARU™ Biff (Bifidobacterium lactis HN019): Discovered in 1899, bifidobacteria play a key role in the human microflora throughout life. Internationally-renowned researchers have identified Bifidobacterium lactis HN019 as having the best probiotic potential of more than 2,000 strains based upon its resistance to bile and acidity in vitro. Further, medical and scientific experts are confident that Bifidobacterium lactis HN019 is safe for humans and does not contribute to antibiotic resistance. This strain has been shown to adhere in high numbers to cultured intestinal epithelial cells, enabling it to better modulate immunity. Also demonstrated for this specific strain are G.I. tract survival and possible support for the preservation or restoration of healthy intestinal microbiotia. International studies involving middle-aged to elderly people revealed that Bifidobacterium lactis HN019 increases cytotoxic activity of NK cells and phagocytic activity of peripheral blood mononucleocytes and does not cause inflammation. In a year-long, double-blind, placebo-controlled trial (n=600), children (aged 1-3) receiving this strain along with galacto-oligosaccharides showed improved immunity, iron status, and growth.

Lactobacillus acidophilus (L. acidophilus La-14): This common inhabitant of the human mouth, intestinal tract, and vagina has diverse health benefits. Phenotypic and genotypic methods have confirmed the strain present among six subspecies to be type a1 L. acidophilus, a strain of human origin that is deposited in the American Type Culture Collection as SD5212. In vitro studies indicate that L. acidophilus La-14 has excellent adhesion to human epithelial cell lines (HT-29), limiting the ability of enteric pathogens to colonize. This vancomycin-sensitive strain has shown inhibition of common bacterial strains in vitro, and re-establishment of the population of lactobacillus and bifidobacterium in the intestinal tracts of mice after antibiotic therapy. L. acidophilus La-14 has been demonstrated to support specific immunity in humans, shifting the immune system to the Th1 response (induced IL-12 and moderately induced TNF-^{a} in vitro). It degrades oxalate 100%.

Lactobacillus plantarum (Lactobacillus plantarum Lp-115): Isolated from plant material, this safe strain, deposited in the American Type Culture Collection as SD5209, is abundantly present in lactic acid-fermented foods such as olives and sauerkraut. In vitro studies have shown that L. plantarum Lp-115 is extremely resistant to low pH conditions, survives the presence of bile at duodenal concentrations, and has excellent adhesion to epithelial cell lines. In vitro, this strain degraded oxalates 40% and either inhibited adhesion or displaced a variety of common pathogens. These studies support the notion that the strain shifts the immune response to the Th 1 type. In animal models, L. plantarum Lp-115 reduced gut inflammation. Human studies indicated stimulation of specific immunity (IgG). This strain, like the other strains present, does not appear to contribute to antibiotic resistance.

Bifidobacterium longum (Bifidobacterium longum Bl-05): Originally isolated from an unknown source, this strain, well accepted as safe for human consumption, has been deposited in the American Culture Collection as SD5206. B.longum B1-05 is resistant to low pH and bile salts and is well suited to the intestinal environment. It is sensitive to vancomycin and no case of antibiotic resistance transfer has ever been reported.

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Max Defense™

Supplement Facts

Serving Size: 1 Capsule
Servings Per Container: 30

	Amount Per Serving	%Daily Value
HOWARU Biff *(Bifidobacterium lactis* HN019*)*	50 Billion CFU*	**
Proprietary Blend	50 Billion CFU*	**
Lactobacillus acidophilus La-14		
Lactobacillus plantarum Lp-115		
Bifidobacterium longum Bl-05		

* Colony-Forming Unit ** Daily Value not established.

Other Ingredients: HPMC and water (capsule), microcrystalline cellulose, magnesium stearate, silicon dioxide.

Dosing:

Take one capsule, once a day, with water, preferably 30 minutes after a meal, or as directed.

References

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2. Arunachalam, K.,et al. Enhancement of natural immune function by dietary consumption of Bifidobacterium lactis (HN019). *Eur. J. Clin. Nutr.*2000 Mar;54:263-267. [PMID: 10713750]
3. Chiang, B. L., et al. Enhancing immunity by dietary consumption of a probiotic lactic acid bacterium (Bifidobacterium lactis HN019): optimization and definition of cellular immune responses. *Eur. J. Clin. Nutr.*2000 Nov;54:849-855. [PMID: 11114680]
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16. Harmsen, HJM, et al. Extensive set of 16S rRNA-based probes for detection of bacteria in human feces. Applied Environmental Microbiology 2002;68(6)2982-2990. [PMID: 12039758]

Caution:

Consult a licensed healthcare practitioner prior to use. Keep out of reach of children.

Storage:

Store in a cool, dry place. Refrigerate if desired. Higher quantities of living organisms are added to the capsules during manufacture to guarantee the label claim for viable organisms for up to two years when kept in a dry place at 72°F or colder.

Shipping:

Manufacturer's testing has demonstrated viability up to 122°F.

Note:

These specific probiotic strains consume milk-derived nutrients as food during fermentation.

*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.

PureCell™