

Biotics Research Corporation

Technical Support

Products #6300 & 6301

Bio-Immunozyne Forte™

The Immune System

The two arms of the immune system, humoral and cell-mediated immunity, work together as an integrated defensive system. Normally, antibodies are produced in response to a foreign material (acquired immunity). Immune complexes form between antibodies and antigens and are scavenged from the circulation or mucosal surfaces. Cell-mediated immunity relies on T and B lymphocytes, mast cells, macrophages and others. T-cells regulate other defensive cells, including macrophages and killer cells. Cells of the immune system, turn over rapidly, hence, their nutrient requirements are high.

In addition, phagocytic cells generate free radicals and other reactive species to attack invaders. These oxidants contribute to the oxidative burden of organs which, if unchecked by the body's antioxidant defenses, can damage membrane lipids, diminish T-cell function and injure mucosal cells. Membranes damaged by lipid peroxidation may offer less resistance to infection. The production of radicals from endogenous and exogenous sources consumes antioxidants. Consequently, a variety of nutrients and factors support immune function.

Vitamins

Vitamin A has long been known to support mucosal cell surfaces and the immune system.¹ Vitamin A helps maintain the integrity of lymphatic tissues, antibody levels (especially sIgA), and responses of cellular immunity to challenge by exogenous stimulatory substances. However, the effects are selective. Possibly a metabolite of retinol regulates lymphocytes.¹ In vitamin A deficient rates, phagocytic activity of circulating polymorphonuclear lymphocytes declined.² The integrity of epithelial cells and production of protective agents, such as mucus secretions, are essential for healthy mucosa. In vitamin A deficiency, the mucosa, glands and ducts are susceptible to disease. Vitamin A requirements appear to be only partially met by the consumption of dark, green, leafy vegetables.³

Vitamin C scavenges free radicals and is essential for the function of many systems, including the immune system. Vitamin C is required for eicosanoids that regulate inflammation and it combats the effects of oxidative stress. Vitamin C is a major antioxidant in the blood and it works together with vitamin E. For example, supplemental vitamin C and vitamin E decreased the production of reactive oxygen species and of lipid peroxidation in patients with myocardial infarction.⁴ During periods of stress, urinary excretion of vitamin C increased.⁵ Vitamin C

supplemented volunteers exhibited increased natural killer cell activity.⁶ B vitamin deficiency is characterized by reduced phagocytic activity. Vitamin B₂, B₆ and pantothenic acid have specifically shown an ability to enhance antibody production. Lack of vitamin B₁ reduces the spleen's ability to produce antigens.⁷ Vitamin B₂ is necessary for proper thymic function.⁷

Vitamin B₆ as pyridoxal phosphate, the coenzyme form of the vitamin, is required by transaminases and amino acid decarboxylases in the breakdown of amino acids. As such, vitamin B₆ plays a critical role in all rapidly dividing cell types. Human studies, as well as animal experiments, link vitamin B₆ deficiency to reduced lymphocyte differentiation, reduced delayed hypersensitivity responses and impaired antibody production.⁸ Other research suggests that suboptimal vitamin B₆ intake may play a role in a defective immune response in hemodialysis patients.⁹

Pantothenate deficiencies are associated with infections of the upper respiratory tract and pharyngitis.¹⁰ Pantothenic acid is necessary for immunoglobulin production. Proper adrenal function requires pantothenic acid, ascorbic acid and zinc.¹¹ These water soluble nutrients are necessary during stress.

Co-Factors

Mixed natural carotenoids, isolated from plants, include alpha and beta carotenes and oxy-carotenoids, such as zeaxanthin, lutein and cryptoxanthin. Carotenoids complement vitamin E as lipid-soluble antioxidants. The natural mixed carotenoids are better absorbed and are more effective antioxidants than synthetic beta carotene *in vivo*.¹² By acting as antioxidants, carotenoids can limit lipid peroxidation.¹³ As example, beta carotene supplementation reduced lipid peroxidation in smokers¹⁴ beta carotene has long been known to have a protective impact on the immune system. Healthy male nonsmokers supplemented with beta carotene revealed increased CD4-CD5 ratio after 9 months compared to controls who had taken a placebo.¹⁵ After supplementation with beta carotene, there were significant increases in monocytes expressing major histocompatibility complex molecules, adhesion molecules and TNF secretion in a similar group of subjects.¹⁶

Coenzyme-Q₁₀ functions both as an essential mitochondrial electron carrier for energy production and as a lipid-soluble antioxidant¹⁷, and dietary coenzyme-Q₁₀ can decrease plasma production of



lipid peroxides.¹⁸ Although coenzyme-Q₁₀ can be synthesized by the body, the levels in membranes of mitochondrial and other structures may be lower than needed for optimal function. Thymic coenzyme-Q₁₀ levels declined in mice with increasing age.¹⁹ Coenzyme-Q₁₀ together with vitamin B₆ supported the production of T4-lymphocytes and immunoglobulins.²⁰

Minerals

Selenium is a trace mineral that is converted to selenocysteine, which plays a catalytic role in glutathione peroxidase production. In this sense, selenium can be considered an antioxidant. Selenium has a major impact on the immune system. Selenium deficiency can lead to depressed immunity and reduced T-cells.²¹ Glutathione peroxidase activity was significantly higher in younger people than in elderly subjects.²²

Copper, Manganese and Zinc: Superoxide dismutase (SOD) is the only family of enzymes that specifically inactivate free radicals, namely, the superoxide radical. Excessive superoxide production, as well as excessive amounts of other oxidants, is linked to chronic, oxidative stress.

Mitochondrial SOD requires manganese as an essential cofactor, while the cytoplasmic form of SOD requires both copper and zinc. Manganese SOD and copper-zinc SOD activities in lymphocytes and neutrophils were not inducible by cytokines in elderly subjects, although these activities were readily inducible in nonaged subjects.²² These results suggested an age related alteration in the regulation of these defensive enzymes. Erythrocyte copper-zinc SOD activity tends to reflect copper status, and this has been used in laboratory assessment.²³ In addition, supplementation with superoxide dismutase of Biotics Research Corporation's vegetable culture may increase erythrocyte superoxide dismutase activity *in vivo*.²⁴

Zinc plays an important role in maintaining the health of the immune system. It is a required cofactor for DNA polymerase and RNA polymerase, essential for cell proliferation. Rapidly dividing cells, including mucosal cells and immune cells, require

zinc. Zinc deficiency leads to atrophy of lymphatic tissues, decreased skin delayed hypersensitivity response, impaired phagocytes, decreased T-cell function and lowered IgA and decreased thymic hormone activity.^{25, 26} Zinc supports granulocyte chemotaxis *in vitro*.²⁷

Bio-Immunozyne Forte™ contains bovine neonatal thymus, spleen, liver, pancreas, in addition to bovine parotid gland, lymphatic and placental tissues. These glandular preparations are processed to maintain nutrients, enzymes and associated factors. Biotics Research uses bovine neonatal tissues where possible. The newborn animal has not been subjected to environmental factors to which the adult animal is subjected. The thymus is most active within a few days after birth, when it populates lymph nodes and the spleen. The effects of preparations of thymic factors after oral administration have been studied.²⁸ Thymus extract supported thymic function during environmentally-induced physical stress.²⁹ Spleen extracts can specifically modulate phagocytic activity *in vitro*.³⁰ Healthy endocrine pancreatic glands are also important. They secrete glucagon, insulin and somatostatin. Somatostatin regulates growth hormone secretion. Healthy adrenal glands support normal immune function. They produce hormones that adapt the body to stress, including epinephrine and glucocorticoids. Cortisol stabilizes mast cells to inhibit inflammation. It also decreased capillary permeability to limit neutrophil infiltration and it reduces phagocytosis. Laboratory analysis of Biotics Research's adrenal glandulars did not detect the presence of the steroid hormones. Salivary glands produce factors that can enhance lymphocyte proliferation and support thymus, spleen and lymph nodes in animal models.³¹ The major salivary glands also produce antimicrobial factors.

Lactobacillus

Lactobacillus acidophilus, a member of the normal gut flora, which produce vitamins, stimulate the immune system, and produce factors that inhibit growth of less desirable organisms. By occupying an ecological niche in the intestine, they further limit the growth of opportunistic organisms.³² Lactobacillus can be depleted by an imbalanced diet and the long term usage of broad-spectrum antibiotics. The effectiveness of supplemental Lactobacillus acidophilus in normalizing GI function has been demonstrated.³³ DDS-1 strain developed at the University of Nebraska, has proven to be a superior strain in terms of its compatibility with the human GI tract and its stability. Therefore, the DDS-1 strain is used in Biotics Research supplements.

For more information, contact our Client Services Department or one of our Technical Consultants

Biotics Research Canada
Toll Free: (800) 840-1676
Box 283 Keswick ON L4P 3E2 Email:
orders@bioticscan.com

www.bioticscan.com

References

- Bates C.J. Vitamin A. *Lancet* 1995; 345: 31-34
- Ongsakul M et al. Impaired blood clearance of bacteria and phagocytic activity in vitamin A deficient rats. *Proc Soc Exp Biol Med*. 1985; 178: 204-408.
- de Pee S et al. Lack of improvement in vitamin A status with increased consumption of dark green leafy vegetables. *Lancet*. 1995; 346: 75-81.
- Ginter E. Optimum intake of vitamin C for the human organism. *Nutr health* 1982; 1: 66-77.
- Herbaczynska-Cedro K et al. supplementation with vitamin C and E suppresses leukocyte oxygen free radical production in patients with myocardial infarction. *Eur Heart J*. 1995; 16: 1044-1049.
- Vojdani A and Ghoneim M. In vivo effect of ascorbic acid
- AM. J. Clin. Nutri.: 35: 417-468, 1982.
- Rall LC, Meydani SN. Vitamin B6 and immune competence. *Nutri Rev*. 1992; 50: 145-147.
- Casciato DA et al. Immunologic abnormalities in hemodialysis patients: improvement after pyridoxine therapy. *Nephron* 1984; 38: 9-16.
- Nutri. Anti-Infectious Defense*: p. 130, 1974.
- Vitamins & Hormones*: 11:133, 1953.
- Ben-Amotz A and Levy Y. Bioavailability of anatural isomer mixture compared with synthetic, all trans beta carotene in human serum. *Am J Clin Nutri* 1996; 63: 729-734.
- Levin G and Mokady S. Antioxidant activity of 9-cis compared to all-trans beta carotene. *Free Radic Biol Med* 1994; 17: 77-82.
- Allard JP et al. Effects of beta carotene supplementation in lipid peroxidation in humans. *Am J Clin Nutr*. 1994; 9:884-890.
- Murata J et al. Effect of long term administration of beta carotene on lymphocyte subsets in humans. *Am J. Clin Nutr*. 1994; 60:597-602.
- Huges DA et al. The effect of beta carotene supplementation on the immune function of blood monocytes from healthy nonsmokers. *J Lab Clin Med*. 1997; 129: 309-317.
- Stocker R et al. Ubiquinol-10 protects human low density lipoproteins more efficiently against lipid peroxidation than does a tocopherol. *Proc Natl Acad Sci* 1991; 88: 1646-1650.
- Weber C et al. Antioxidative effect of dietary coenzyme-Q10 in human blood plasma. *Int J Vit Nutri Res* 1994; 64: 311-315.
- Bliznakov EG et al. Coenzyme-Q deficiency in aged mice. *J Medicine* 1978; 9: 337-396.
- Folkers E et al. The activities of coenzyme-Q10 and vitamin B6 in immune responses. *Biochem Biophys Res Commun*. 1993; 193: 88-92.
- Taylor EW. Selenium and cellular immunity. Evidence that selenoproteins may be encoded in the +1 reaching from overlapping the human CD4, CD8, HLA-DR genes. *Biol. Trace Elem Res* 1995; 49: 85-95.
- Niwa Y et al. Age-dependent basal level and induction capacity of copper-zinc and manganese superoxide dismutase and other scavenging enzyme activities in leukocytes for young and elderly adults. *Am J Pathol* 1993; 143: 312-320.
- Milne DB. Assessment of copper nutritional status. *Clin Chem* 1994; 40: 1479-1484.
- Introna M, Moss J, Ronzio RA. The effect of oral supplementation with legume derived superoxide dismutase on erythrocyte superoxide dismutase in healthy volunteers. *Appl Nutr*, 1997; 49 (1,2): 12-17.
- Castillo-Duran C et al. Controlled trial of zinc supplementation during recovery for malnutrition. *Am J Clin Nutr* 1987; 45: 602-608.
- Chandra RK. Symposium on nutrition and immunity in serious illness. *Proc Nutr Soc* 1993; 52: 77-84.
- Ventura MT et al. In vitro correction of defective granulocytes chemotaxis in the elderly. *IRCS Med Soc* 1985; 13: 535-536.
- Genova R, Guerra A. Thymo-modulin in management of food allergy in children. *In J Tiss Reac* 1986; 8: 239-242.
- Obminska-Domoradzka B, Debowy J. Effect of DTC in humoral response of SRBC- Immunized mice exposed to restraint stress. Comparison with calf thymus extract. *Immuno pharmacol Immunotoxicol* 1996; 18: 421-431.
- Krasowski H et al. Einfluss von Kalbermilz- und Kalber Thymus Extrakten hypopentind T00ufstin auf du Phagozytosiaktivitat von neutrophilen Giranulozyten. *Arzneimittelforschung* 1992; 42: 147-151.
- Sabbadini E, Bercz I. The submandibular gland: a key organ in the neuro-immuno-regulatory network? *Neuroimmunomodulation* 1995; 2: 184-202.
- Fernandes CF and Shahani KM. Modulation of antibiosis by lactobacilli and other lactic cultures and fermented foods.
- Fernandes CF et al. Control of diarrhea by lactobacilli. *J Applied Nutri* 11988; 40: 32-43.

Supplement Facts

Serving Size: 2 Tablets			Servings Per Container: 45		
	Amount Per Serving	% Daily Value		Amount Per Serving	% Daily Value
Vitamin A (as palmitate and natural mixed carotenoids)	6.667 IU	133%	Parotid (bovine)	40 mg	*
Vitamin C (as calcium and magnesium ascorbates)	200 mg	333%	Lymph (bovine)	60 mg	*
Vitamin E (as d-alpha tocopheryl acetate)	30 IU	100%	Placenta (bovine)	20 mg	*
Thiamin (B1) (as cocarboxylase chloride)	10 mg	667%	Trypsin & Alpha Chymotrypsin (porcine)	25 mg	*
Riboflavin (B2) (as riboflavin-5-phosphate)	15 mg	882%	L-Lysine HCl	100 mg	*
Niacin (as niacinamide)	20 mg	100%	Coenzyme Q10 (emulsified)	1 mg	*
Vitamin B6 (as pyridoxal-5-phosphate)	15 mg	750%	Citrus Bioflavonoids	50 mg	*
Pantothenic Acid (as calcium pantothenate)	25 mg	250%	Superoxide Dismutase (from vegetable culture †)	60 mcg	*
Zinc (as zinc gluconate)	30 mg	200%	Catalase (from vegetable culture †)	60 mcg	*
Selenium (from vegetable culture † and selenomethionine)	50 mcg	71%	Proprietary Blend	110 mg	
Copper (as copper gluconate)	1 mg	50%	Echinacea (Echinacea angustifolia (root)*, Cayenne Pepper (Capsicum annuum) (fruit)*, Chlorophyllins*, Ørganik-15™*, Lactobacillus acidophilus (DDS-1)*		
Manganese (as manganese gluconate)	2 mg	100%	*Daily Value not established		
Neonatal Adrenal Complex (bovine)	20 mg	*	Other ingredients: Cellulose, stearic acid (vegetable source), magnesium stearate (vegetable source), modified cellulose gum and food glaze.		
Neonatal Thymus (bovine)	60 mg	*	† Specially grown, biologically active vegetable culture containing Phytochemically Bound Trace Elements™ and naturally associated phytochemicals including polyphenolic compounds with SOD and catalase, dehydrated at low temperature to preserve associated enzyme factors.		
Neonatal Spleen (bovine)	60 mg	*			
Neonatal Liver (bovine)	60 mg	*			
Neonatal Pancreas (bovine)	60 mg	*			

RECOMMENDATION: Two (2) tablets each day as a dietary supplement or as otherwise directed by a healthcare professional.

Caution: Not recommended for pregnant or lactating women.

KEEP OUT OF REACH OF CHILDREN

Keep container tightly sealed and store in a cool, dry area away from direct sunlight.

Sealed with an imprinted safety seal for your protection.

NDC #55146-06300 Rev. 3/09

Product Information

Bio-Immunozyne Forte™ is available in bottles of 90 and 180 tablets.

Product Adjuncts: IAG™





Bio-D-Mulsion 1000IU's



Product Number: 1013

Bio-D-Mulsion 1000IU's Vitamin D Microemulsified for complete uptake and absorption-- (in the form of cholecalciferol) -1,000 IU per drop extracted from Lamb's wool. NO PRESERVATIVES!

Active Ingredients:

Each drop supplies:

Vitamin D (in the form of cholecalciferol) 1,000 IU derived for Lamb's wool.



Cytzyme-THY™



Product Number: 3011 (60T) & 3043 (180T)

Cytzyme-THY™ supplies glandular specific support as Neonatal Thymus Concentrate (bovine), combined with SOD and catalase, important antioxidant enzymes. The thymus gland is most active following birth (neonatal stage). Thymic function is critical in immune health, however function declines with age.

Active Ingredients:

Neonatal Thymus Concentrate (bovine), Superoxide Dismutase (from vegetable culture), Catalase (from vegetable culture)



IAG™



Product Number: 6630 (100G)

IAG™ supplies arabinogalactans, derived from the Larch tree. Arabinogalactans are long, densely branched, high-molecular weight polysaccharides, which act as a natural activators of the immune system's complement pathway. The complement pathway is responsible for non-specific host defense mechanisms. Studies have also documented Arabinogalactan's ability to enhance the cytotoxicity of Natural Killer Cells. In addition to immune support, IAG™ is also considered a prebiotic, as it is able to support the growth of friendly bacteria.

Active Ingredients:

Sodium, Potassium, Arabinogalactans



Immuno-gG®

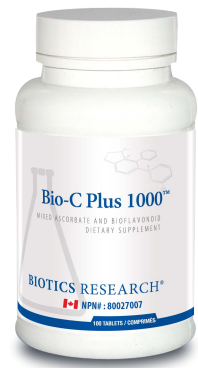


Product Number: 5291 (100C)

Immuno-gG® supplies a supplemental source of immunoglobulin G from Bovine Colostrum. It is fortified with the amino acids L-Lysine and L-Arginine. As a source of colostrum, it provides support for healthy immune function. Colostrum supplies proteins, carbohydrates, fats, vitamins, minerals, and proteins (antibodies) that support the immune system. Bovine colostrum may also be beneficial for boosting the immune system, healing injuries, repairing nervous system damage, for improving mood, and for facilitating a sense of well being.

Active Ingredients:

Immunoglobulin G (from bovine colostrum), L-Lysine Hydrochloride, L-Arginine Hydrochloride



Bio-C-Plus 1000

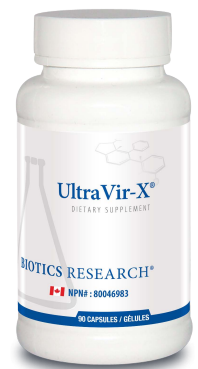


Product Number: 5291 (100C)

Bio-C-Plus 1000 Buffered vitamin C with mixed ascorbates (500 mg), citrus bioflavonoids (100 mg), vegetable culture antioxidant enzymes superoxide dismutase and catalase. consider colds, flu, fever, fatigue, adrenal stress, inflammation, healing, and for long-term vitamin C supplementation.

Active Ingredients:

Vitamin C, Calcium ascorbate, Magnesium ascorbate, Citrus bioflavonoids



UltraVir-X®

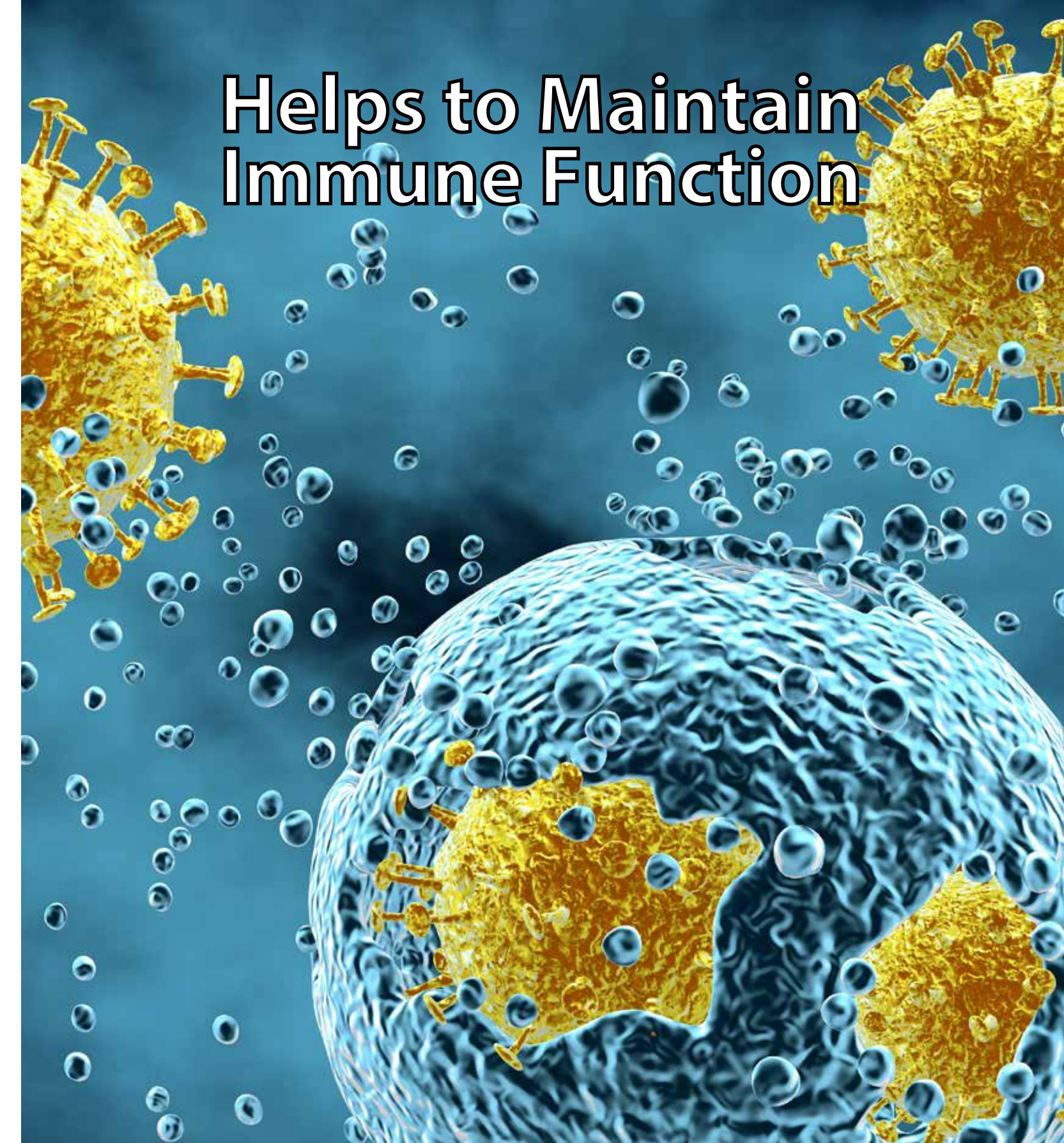


Product Number: 6360 (90C)

UltraVir-X® provides key vitamins and specific minerals, combined with a proprietary complement of botanical compounds possessing immuno-modulating properties. It offers unique supplemental support for normal, healthy immune function.

Active Ingredients:

Vitamin A (as natural mixed carotenoids and acetate) (IU ratio 1:2), Vitamin C (as calcium and magnesium ascorbate), Zinc (as zinc gluconate), Copper (as copper gluconate), and a proprietary blend of Red-Rooted Sage (*Salvia miltiorrhiza*) (root) (extract), Boneset (*Eupatorium perfoliatum*) (extract), Cang-zhu *Atractylodes* (*Atractylodes lancea*) (rhizome) (extract), Sweet Violet (*Viola odorata*) (leaf) (extract), Wheat Grass (*Triticum aestivum*) (leaf & stem), Bupleurum (*Bupleurum chinense*) (root) (extract), Astragalus (*Astragalus membranaceus*) (root) (extract), Bee Propolis, Maitake Mushroom (*Grifola frondosa*) (aerial part), Black Walnut (*Juglans nigra*) (leaf) (extract), Hesperidin (from citrus fruit), Rutin



Helps to Maintain Immune Function



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.



(800) 840-1676

www.bioticscanada.com



(800) 840-1676

www.bioticscanada.com



The immune system is not one single entity - it's a complex interconnected system that evolves as we age. Apart from fighting viruses, bacteria, fungi and parasites, the immune system also plays an important role in tissue repair - wound healing, elimination of dead cells, and formation of gut microbiota. It represents an elaborate, finely tuned system that destroys and counters the effects of microorganisms and foreign substances, but also sets the stage for overall health.

Some ways we can support our immune system include boosting phytonutrient intake, avoiding processed foods, washing hands and getting enough sleep and exercise.

In addition to these healthy lifestyle choices, Biotics Research offers a number of nutritional formulas specifically designed to support a healthy immune response.



BioProtect Plus™

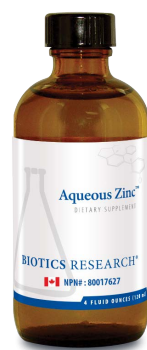


Product Number: 2802

BioProtect Plus™ Broad-spectrum vitamin (A, C, E), minerals (zinc, selenium, potassium), enzyme (CoQ10, SOD, catalase), amino acid (glutathione, methionine, taurine, NAC), antioxidant formulation. Consider to prevent free radical damage from pollution, chemicals, and smoke, psychological and physical stress, electromagnetic radiation, and muscle soreness due to exercise-induced lactic acid.

Active Ingredients:

Coenzyme Q10, Taurine, Quercetin, Green tea extract, L-Glutathione, L-Methionine, Mixed carotenoids, Tocopherols, N-acetyl_L-cysteine, Olive, Vitamin A, Vitamin C, Vitamin D3, Vitamin E, Vitamin K1, Grape, Zinc



Aqueous Zinc™



Product Number: 1731

Aqueous Zinc™ Consider for excess Copper detoxification. Also for immune insufficiency, the zinc taste test (ZTT) to determine zinc tissue status, and for general zinc supplementation with immune insufficiency, loss of sense of smell and taste, slow healing cuts, acne, low libido, prostate hypertrophy, hair loss, chronic yeast infections, macular degeneration, premature graying, fingernail white spots, synergist to magnesium, vitamin B6 and chromium. Chelates copper.

Active Ingredients:

Per 2 tsp: Liquid zinc sulfate heptahydrate 2.3 mg



Zn-Zyme Forte™



Product Number: 1725

Zn-Zyme Forte™ Consider excess Copper detoxification and bacterial infections. Zinc is a co-factor (also Lysine and B-6 (P-5-P) utilized to sulphate Vitamin D (VDR receptor). Organic zinc gluconate and aspartate (25 mg) considered for immune insufficiency, loss of taste and smell, slow healing cuts, acne (with vitamin A and thymus tissue), low libido, prostate hypertrophy, chronic yeast infection, macular degeneration, hair loss, premature graying, fingernail white spots, magnesium, vitamin B6 and chromium synergist, stressful situations and chelates copper. Also considered for Tinnitus.

Active Ingredients:

Each tablet supplies: Zinc (as zinc gluconate and zinc citrate) 25 mg



Bio-Ae-Mulsion 3000 RAE



Product Number: 1018 (1oz.)

Bio-Ae-Mulsion 3000 RAE supplies a concentrated source of Vitamin A in an oil in water emulsion. Vitamin A oil has been dispersed into microscopic particles to aid absorption and assimilation. Each drop supplies 9,927 IU of vitamin A.

Active Ingredients: Vitamin A (as palmitate)



Bio-Immunozyne Forte™



Product Number: 6300 (90C) & 6301 (180C)

Bio-Immunozyne Forte™ is a unique, broad-spectrum multiple designed to specifically support normal, healthy immune function and provide a wide array of vitamin, mineral, botanical, amino acid and organ/glandular specific support.

Active Ingredients: Vitamin A (as palmitate and natural mixed carotenoids) (IU ratio 3:1), Vitamin C (as calcium and magnesium ascorbates), Vitamin E (as d-alpha tocopheryl acetate), Thiamin (B1) (as cocarboxylase chloride), Riboflavin (B2) (as riboflavin-5-phosphate), Niacin (as niacinamide), Vitamin B6 (as pyridoxal-5-phosphate), Pantothenic Acid (as calcium pantothenate), Zinc (as zinc gluconate and zinc citrate), Selenium (from vegetable culture† and selenomethionine), Copper (as copper gluconate), Manganese (as manganese gluconate), Neonatal Adrenal Complex (bovine), Neonatal Thymus (bovine), Neonatal Spleen (bovine), Neonatal Liver (bovine), Neonatal Pancreas (bovine), Parotid (bovine), Placenta (bovine), Trypsin & Alpha Chymotrypsin (porcine), L-Lysine HCl, Coenzyme Q10 (emulsified), Citrus Bioflavonoids (from citrus fruit), Superoxide Dismutase (from vegetable culture), Catalase (from vegetable culture†), Echinacea angustifolia (root), Neonatal Lymph Tissue (bovine), Cayenne Pepper (Capsicum annum) (fruit), Chlorophyllins, OOrganik-15™, Lactobacillus acidophilus (DDS-1).

