# IMEGA IOG2000 Digestive & Systemic Immune Defense\*\*



# PRODUCT OVERVIEW

Mega IgG2000™ is a dairy-free immunoglobulin concentrate that supports healthy digestion, neutralizes microbial and environmental toxins, while improving gut barrier function. Unlike other milk-derived immunoglobulins on the market, Mega IgG2000 is derived from bovine serum, making it lactose-free, casein-free, and β-lactoglobulin-free.\*\*

This unique alternative to bovine colostrum supports a healthy mucosal immune system by decreasing unfavorable immune activation in the mucosal layer, lowering toxic burden and strengthening gut barrier function. The serum immunoglobulin in Mega IgG2000 has been the subject in over 10 published human clinical trials on inflammatory and infectious bowel conditions. \*\*

Serving Size: 4 capsules Servings Per Container: 30		
Amount Per Serving	% Daily V	/alu
Total Protein	2g	49
Serum-derived immunoglobulin concentrate (ImmunoLin®) Immunoglobulin G (IgG)	2000 mg 900 mg	
Immunoglobulin M (IgM) Immunoglobulin A (IgA)	100 mg 20 mg	
Bovine serum albumin	100 mg	

Mucosal Activation	Antigen Binding	
	lgG binding to antigens	
	T Y X	
Goblet Cell		

# **IMMUNE RESPONSE**

When an antigen enters the body, it elicits a response from the innate and adaptive branches of the immune system. The adaptive immune response utilizes B and T lymphocytes to find foreign antigens, neutralize them, and eliminate them from the body. B lymphocytes do this by producing antibodies, or immunoglobulins, that can bind to unwanted antigens and remove them from the system.\*\*

### DIAGRAM I Immunoglobulin Function

**LEFT SIDE:** Free-flowing antigens that reach the epithelial lining can trigger mucosal activation and inflammation. **RIGHT SIDE:** IgG antibodies bind and neutralize these antigens before they can trigger mucosal activation.











Saint Augustine, Florida, USA

# **HOW DOES IT WORK?**

Immunoglobulin G (IgG), the most abundant antibody in the system, can be found in blood and extracellular fluid, allowing it to control infections in the body. IgG antibodies can bind a variety of pathogens, including bacteria, viruses, and fungi, as well as their toxic by-products. Binding these toxins will neutralize them and allow the immune system to safely remove them from the body.\*\*





# **Immune Support**

Significantly reduces inflammation and intestinal damage\*\*



# **Healthy Metabolism**

Improves nutrient digestion and absorption to support a healthy metabolism\*\*



## **Mucosal Defense**

Maintains healthy mucosal barrier function in the digestive tract\*\*

# TABLE 1 Mega IgG2000 binds and neutralizes a variety of bacterial antigens.

Antigen	Description
Lipopolysaccharide (LPS)	Major immune activating cell wall component (lipid & carbohydrate)
Flagellin	Antigenic proteins that form appendages to provide motility
Lipoteichoic acid (LTA)	Immunostimulatory cell wall component of Gram(+) bacteria
PAM3CSK4	Immunostimulatory bacterial lipopeptide (synthetic)
Poly I:C	Analog of double-stranded RNA; stimulates cytokine production
Cytosine-p-guanine dinucleotides (CpG)	Bacterial DNA motif
C. difficile toxins A & B	Virulence factors
Helicobacter pylori	Gram-negative bacteria found in the stomach
Listeria monocytogenes	Gram-positive, anaerobic bacteria
Mycoplasma spp.	Bacteria lacking cell wall, resistant to most antibiotics

## **DOSING**

Ages 2+. Take 4 capsules daily with or without a meal, or as directed by your healthcare professional.

Bovine-based. Do not consume if you have an allergy to beef.



1) Detzel CJ, Horgan A, Henderson AL, Petschow BW, Warner CD, Maas KJ, et al. Bovine immunoglobulin/protein isolate binds pro-inflammatory bacterial compounds and prevents immune activation in an intestinal co-culture model. PloS one. 2015;10(4):e0120278.

2) Kuchibhatla R, Petschow BW, Odle J, Weaver EM. Nutritional Impact of Dietary Plasma Proteins in Animals Undergoing Experimental Challenge and Implications for Patients with Inflammatory Bowel Disorders: A Meta-analysis. Adv Nutr. 2015;6(5):541-51.

3) Perez-Bosque A, Miro L, Maijo M, Polo J, Campbell J, Russell L, et al. Dietary intervention with serum-derived bovine immunoglobulins protects barrier function in a mouse model of colitis. American journal of physiology Gastrointestinal and liver physiology. 2015;308(12):G1012-8.

4) Wilson D, Evans MD, Weaver E, Shaw AL, Klein GL. Evaluation of Serum-Derived Bovine Immunoglobulin Protein Isolate in Subjects with Diarrhea-Predominant Irritable Bowel Syndrome. Clinical Medicine Insights: Gastroenterology. 2013;6:49-60.

5) Assmuth DM, Ma ZM, Albanese A, Sandler NG, Devaraj S, Knight TH, et al. Oral Serum-Derived Bovine Immunoglobulin Improves Duodenal Immune Reconstitution and Absorption Function in Patients with HIV Enteropathy. Aids. 2013;27:2207-17.