

# ImmunoG Concentrated Immunoglobulin G

- Helps Maintain Microbial Balance
- Stimulates the Body's Normal Gut Repair Mechanisms
- Provides Concentrated Immunoglobulins to Enhance Mucosal Immunity

**ImmunoG is a highly concentrated (40%) immunoglobulin G (IgG) formula that provides essential nutrition for improved immune health. The immunoglobulin and growth factors in colostrum extract can promote passive immunity, or the transfer of immunity from one organism to another.<sup>1</sup> ImmunoG's pure and high-concentration formula provides improved immune modulation and strengthens the gut-immune barrier. Consistency in potency and purity of colostrum extracts is a primary concern for clinicians; advanced filtration and purification techniques make ImmunoG a superior clinical tool. ImmunoG provides 1,000 mg of IgG and 2 g of protein per serving.**

## Overview

Traditionally, colostrum is considered the "first food" of newborns because it is easily digestible and enhances the immune system. More recently, colostrum has been shown to regulate the immune system and provide vital growth and healing factors.<sup>2</sup> An optimally functioning immune system prevents unwanted toxins and molecules from disturbing the body's natural homeostasis. Colostrum naturally includes immune factors, amino acids, nucleotides and growth factors which provide several benefits to human immune health by functioning against microorganisms. There are five main immunoglobulins, but the most common is IgG, which accounts for 75-80% of all serum antibodies in the body. IgG plays a major role in immune system function, as it defends the body against foreign substances.

## Broad-Range Specificity Immunoglobulins\*

Research has shown that IgG can be effective in neutralizing microorganisms found in the gastrointestinal tract.<sup>3</sup> Colostrum not only includes high quantities of IgG, but also several factors that may positively impact the immune system. Many studies note the use of bovine colostrum to enhance passive immunity to prevent immune challenges, especially when entering by way of the gastrointestinal tract.<sup>3</sup>

## Lactoferrin\*

Lactoferrin is an iron-binding glycoprotein, that facilitates iron absorption.<sup>4</sup> Lactoferrin modulates cytokine release, and its receptors have been found on many immune cells, including lymphocytes, monocytes, macrophages and platelets.<sup>5</sup>

## Proline-Rich-Peptides (PRPs)\*

PRPs are signaling peptides produced by activated macrophages and the T cells that control the production of all cytokines. PRPs have the unique ability to modulate the immune system by increasing activity level in case of certain challenges and decreasing activity level when health is maintained.<sup>6</sup> PRPs are the main regulators of cell protein synthesis and convey appropriate cell functions.

## Growth Factors\*

Growth factors in colostrum extract, such as insulin-like growth factor -1 and 2 (IGF-1 and IGF-2) and transforming growth factor-beta 2 (TGF- $\beta$ 2) function to stimulate the growth of the gut. They have also been shown to affect rates of protein synthesis, protein degradation and DNA synthesis.<sup>7</sup> In addition, TGF- $\beta$ 2 may be beneficial in reducing gut permeability and enhancing cell rejuvenation.

## Sialic Acid\*

Sialic acid is an essential component of glycoproteins, which may function to influence brain growth, enhance learning ability and memory formation.<sup>8</sup> Sialic acid has been shown to assist in enhancing synaptic pathways.<sup>9</sup> It may also assist in immune regulation when necessary.

\*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.

## Directions

4 capsules per day or as recommended by your health care professional.

## Does Not Contain

Gluten, corn, yeast, artificial colors and flavors.

## Cautions

If you are pregnant or nursing, consult your physician before taking this product.

<b>Supplement Facts</b> <sup>v1</sup>		
Serving Size 4 Capsules		
Servings Per Container 30		
<b>4 capsules contain</b>	<b>Amount Per Serving</b>	<b>% Daily Value</b>
Protein	2 g	4%*
Colostrum concentrate (bovine)	2.5 g	**
Immunoglobulin G (IgG)	1 g	**
Lactoferrin	13 mg	**
* Percent Daily Values are based on a 2,000 calorie diet.		
** Daily Value not established		

- Morgan B., Winick M. Effects of administration of N-acetylneuraminic acid (NANA) on brain NANA content and behavior. *J Nutr* 1980;110:416–24.
- Schauer R. Sialic acids:Chemistry, metabolism and function. Wien, NY: Springer-Verlag, 1982.

## References

- Godhia M.L, Patel N. Colostrum - its Composition, Benefits as a Nutraceutical - A Review. *Curr Res Nutr Food Sci* 2013;1(1):37-47 doi : <http://dx.doi.org/10.12944/CRNFSJ.1.1.04>
- Schaller J.P, et al. Prevention of human rotavirus-induced diarrhea in gnotobiotic piglets using bovine antibody. *J Infect Dis* 1992, 165, 623–630.
- Hurley W. L., Theil P. K. (2011). Perspectives on Immunoglobulins in Colostrum and Milk. *Nutrients*, 3(4), 442–474. doi:10.3390/nu3040442
- Arnold R.R., Brewer M., Gauthier J.J. Bactericidal activity of human lactoferrin: sensitivity of a variety of micro-organisms. *Infect Immunol* 1980;28:893–8.
- Ronz Z.P. Bovine Colostrum Emerges as Immune System Modulator. *Am J. Natr Med* Mar1998;5(2):19-23
- Keech A., Buhmeyer J.I., Kolt R. 2008. The Role of Colostrum Proline-Rich Polypeptides in Human Immunological and Neurological Health. Proceedings of Light-Activated Tissue Regeneration and Therapy Conference. Springer US. 233-243.
- Francis G. L., et al. (1988). Insulin-like growth factors 1 and 2 in bovine colostrum. Sequences and biological activities compared with those of a potent truncated form. *Biochemical Journal*, 251(1), 95–103.

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