

Ingredient Glossary

A Word About Proteins

Before describing the details of our protein blend, a brief primer on the world of proteins may be helpful in order to gain a better understanding.

Protein

In the simplest terms, proteins are biological molecules made of chains of amino acids. The body uses amino acids to produce its own proteins which act as structural components of muscle and other tissues. Proteins also participate in a wide range of essential processes that include enzyme function, cell growth, and cell signaling. Proteins can come from both animal and plant sources.

Protein Concentrate

A form of supplemental protein powder made from a specific source, which contains 70-80% protein content. Protein concentrates are the most popular protein supplements on the market.

Protein Isolate

A purified version of a protein concentrate powder that contains 90% or more protein.

Plexus® Whey Protein Blend:

Protein

Proteins are biological molecules made of chains of amino acids. The body uses amino acids to produce its own proteins, which act as structural components of muscle and other tissues, and participate in a wide range of essential processes that include enzyme function, cell growth, and cell signaling.

Whey Protein

The main constituents of milk protein are casein and whey fractions. Whey is the soluble protein remaining after casein has been coagulated during the cheese making process. Whey is a complete protein source, abundant in essential amino acids, particularly branch chain amino acids like leucine. Whey protein is highly digestible and highly absorbable source of amino acids, which is why it is often the protein of choice for athletes who supplement protein in their diet for their recovery needs.

Whey Protein Concentrate

A form of supplemental protein powder made from a specific source, which contains 80% protein content. Protein concentrates are the most popular proteins supplements on the market.

Whey Protein Isolate

A purified version of a protein concentrate powder that contains 90% or more protein.

Prebiotic fiber:

Prebiotics promote the growth of beneficial bacteria, both those that are already established in the colon, as well as those externally administered as probiotic bacteria. Prebiotics are food ingredients which are indigestible in the upper GI tract and reach the colon, selectively promoting the growth and/or activity of certain bacteria in the colon that confers health benefits upon the host and increased host well-being.

Hydrolyzed Guar Gum (Naturally derived):

Partially hydrolyzed guar gum is a source of galactomannan fiber from cluster beans. It is an indigestible prebiotic fiber that has been shown to enhance the growth of helpful gut microbes *Bifidobacterium* and *Lactobacillus spp.*

Vitamin and Mineral Blend:

Vitamin A as beta carotene (Scientifically formulated) and retinyl palmitate (Scientifically formulated):

Vitamin A is a fat-soluble vitamin. It is derived from two sources: preformed retinoids and provitamin carotenoids. Vitamin A is involved in a range of functions the body; we need vitamin A for good vision and eye health, for a strong immune system, and for healthy skin and mucous membranes. Beta-carotene is a precursor of vitamin A, and a powerful carotenoid antioxidant. In the body, beta-carotene converts into vitamin A. Taking big doses of vitamin A could be toxic, but our body only converts as much vitamin A from beta-carotene as it needs. That means beta-carotene is considered a safe source of vitamin A.

Vitamin C (as ascorbic acid and ascorbyl palmitate) (Scientifically formulated):

Vitamin C is an essential water-soluble vitamin that has a wide range of functions in the human body. These include energy production, antioxidant, maintenance of connective tissue (tendons, cartilage, ligaments and blood vessel), skin, muscle and bone health, minor wound healing, brain and nerve function, immune health and assisting the absorption of iron. Ascorbyl palmitate is a fat-soluble form of vitamin C, which is better absorbed than ascorbic acid, the water-soluble form, and easy to be incorporated into cell membranes, protecting them from oxidative damage. It offers all the benefits of ascorbic acid.

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Iron (as ferric orthophosphate) (Scientifically formulated):

Iron is an essential mineral found in the body. Most of the body's iron is found in the hemoglobin of red blood cells where it is necessary for its function of transporting oxygen throughout the body. Iron is also important for metabolism where it works as a co-factor for aerobic enzymes and a charge carrier in the mitochondria. Ferric orthophosphate is an absorbable form of iron that does not have an unpleasant taste that is common with other forms of iron.

Vitamin D3 (as cholecalciferol) (Scientifically formulated):

Vitamin D is a fat-soluble vitamin that has a variety of roles involving nearly every system of the body. The major function of vitamin D is to aid in the absorption of calcium and maintain normal blood levels of calcium and phosphorus. Vitamin D contributes to the reproductive system, the digestive system, bone and the immune system function. There are several forms of vitamin D, the form primarily utilized by the human body is cholecalciferol (vitamin D3), rather than ergocalciferol form (Vitamin D2). Cholecalciferol (vitamin D3) is used in Plexus® products.

Vitamin E (as d-alpha tocopherol succinate) (Naturally derived):

Vitamin E is an essential nutrient and a powerful antioxidant, important for cell and tissue health, which may have a role in blood flow, immune function and blood cell functioning and in protecting against cellular stress. There are a family of several naturally occurring compounds, four tocopherols (alpha, beta, gamma, and delta) with widely varying degrees of biological activity. The most active form is the "d" isomer of alpha-tocopherol. The succinate form of d-alpha tocopherol is used in Plexus products. Vitamin E in this product is derived from non-GMO sunflower oil.

Vitamin B1; Synonyms: Thiamine (as thiamine mononitrate) (Scientifically formulated):

Vitamin B1 plays a crucial role in certain metabolic reactions and functions as a co-enzyme in energy production and carbohydrate metabolism. Every cell of the body requires vitamin B1 to form adenosine triphosphate (ATP). Vitamin B1 is also essential for the proper functioning of nerve cells.

Vitamin B2; Synonyms: Riboflavin (as riboflavin 5-phosphate sodium) (Scientifically formulated):

Vitamin B2 is important for body growth and red blood cell production. It is involved in the body's production of energy, immune health as well as the healthy growth of hair, skin and nails, and important cofactor for formation of other B vitamins. Riboflavin-5-phosphate is the bioactive, tissue ready form of riboflavin.

Niacin; Synonyms: Vitamin B3 (as niacinamide) (Scientifically formulated):

Niacin is required for cell respiration and helps release the energy in carbohydrates, fats, and proteins. It supports proper circulation, healthy skin, nervous system, and digestion. Nicotinamide is a non-flushing form of vitamin B3.

Vitamin B6; Synonyms: Pyridoxine (as pyridoxal 5-phosphate and pyridoxine hydrochloride) (Scientifically formulated):

Vitamin B6 is a cofactor for enzymes that are involved in more than 100 reactions impacting the metabolism of protein, fats and carbohydrates. It is also involved in the synthesis of some neurotransmitters and helps maintain normal nerve function, and acts in the formation of red blood cells. Pyridoxal-5'-phosphate (PLP) is active form of B6.

Folic acid; Synonyms: Folate, Vitamin B9 (as L-methylfolate) (Scientifically formulated):

Folic acid is the supplemental form of folate, which is essential for cell replication and growth. Folic acid is important in the utilization of proteins (amino acids) and DNA synthesis. Folic acid also plays an important role in pregnancy. Dietary folate and folic acid both undergo conversion in the body to the active form tetrahydrofolate (THF), and then finally into L-methylfolate (5-MTHF) to be used in the body. 5-MTHF is the active form of folate.

Vitamin B12 (as methylcobalamin) (Scientifically formulated):

Vitamin B12 is needed for the function of all cells as it is required for normal cell growth and replication. Vitamin B12 also makes healthy blood cells and helps keep nerves working properly. Natural sources of this vitamin are only found in animal foods; vegetarians may not be getting enough vitamin B12. Methylcobalamin is a bioactive and bioavailable form, immediately ready to be used by our body.

Biotin; Synonyms Vitamin B7 (as d-biotin) (Scientifically formulated):

Biotin has an important role in metabolic function. It assists in metabolism of fatty acids and utilization of B vitamins. It is also important in energy producing steps during metabolism in the body.

Pantothenic Acid; Synonyms: Vitamin B5 (as calcium d-pantothenate) (Scientifically formulated):

Pantothenic acid has a role as a cofactor for enzymes involved in the metabolism of fats, carbohydrates and proteins, and in regulating the ability to cope with stress, due to its involvement in the synthesis of the neurotransmitter acetylcholine. It is also needed for the synthesis of cholesterol, vitamin D and some hormones.

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Calcium (Natural):

Calcium is the most abundant mineral in our body. It is essential for the development and maintenance of strong bones and teeth, where about 99% of the body's calcium is found. Calcium also helps the heart, nerves, muscles, and other body systems work properly.

Magnesium (as magnesium hydroxide) (Naturally derived):

Magnesium is one of the most abundant minerals in the human body, with half of magnesium located in the bones and teeth. Magnesium is involved in over 300 enzymatic processes, contributes to energy production, and helps regulate levels of calcium, zinc, potassium, and other important nutrients in the body. Our magnesium is from natural marine source, which also contains over 50 trace minerals from the Irish Sea.

Zinc (as zinc citrate) (Scientifically formulated):

Zinc is an essential trace mineral that acts as a cofactor in approximately 300 different enzyme reactions, and contributes to our total physical and mental well-being, including immune system function, growth, bone strength, and cognitive function. Zinc citrate is among the best forms of chelated zinc, being more absorbable than zinc sulfate, zinc acetate, zinc gluconate, or zinc oxide.

Selenium (as L-selenomethionine) (Scientifically formulated):

Selenium is an essential trace mineral and a constituent of the antioxidant enzyme glutathione peroxidase, which is necessary for neutralizing free radicals. Selenium exerts important positive effects on normal cell function and cell development. Selenium supports health of the heart and immune system. Additionally, selenium supports thyroid function. L-selenomethionine consists of selenium chelated to the amino acid methionine and is biologically active in humans, providing a highly bioavailable form of selenium.

Copper (as copper citrate) (Scientifically formulated):

Copper is an essential trace mineral for bone health, connective tissue health, cardiovascular health, lipid metabolism, neurological health, and skin health. Copper is also important for natural antioxidant defense system. Copper activates a number of enzymes important to energy metabolism and assists in the formation of hemoglobin and red blood cells by facilitating iron absorption. Copper citrate is a highly bioavailable form of copper.

Iodine (as potassium iodine) (Scientifically formulated):

Iodine is an essential mineral nutrient. Iodine is the primary component of thyroid hormones which are responsible for the regulation of metabolism, as well as protein synthesis and many

enzymatic processes in the body. Thyroid hormone is important for early development with myelination of the developing nervous system. Potassium iodine is a common form of iodine that readily dissolves and is well absorbed.

Manganese (as manganese citrate) (Scientifically formulated):

Manganese is an essential trace mineral that helps activate and synthesize important enzymes and nutrients necessary for skeletal and connective tissue healthy and cellular integrity, energy production and immune function. Manganese citrate is a highly bioavailable form of manganese.

Molybdenum (as molybdenum glycinate) (Scientifically formulated):

Molybdenum is an essential trace mineral that is needed by the body for assisting enzymes in the breakdown of fats and carbohydrates, and required by the body to properly metabolize nitrogen. Molybdenum also supports the body's storage of iron and other cellular functions. Molybdenum glycinate is a nutritionally functional, highly absorbable form of molybdenum.

Iodized Sea Salt (Naturally derived):

Sea salt is a natural source of essential minerals sodium and chloride made from evaporated sea water. Sea salt contains traces of magnesium, calcium and potassium as well. Iodine is an essential trace mineral necessary for thyroid function and synthesis of thyroid hormone.

Potassium (Natural):

Potassium is an essential mineral important for the regulation of fluid balance, acid-base balance, and cell membrane function. It is involved in many physiologic processes including nerve impulse firing, and muscle contraction.

Coconut Palm Sugar (Organic) (Natural):

Palm sugar is a natural sugar derived from the sap of the flower bud stem of the coconut palm. According to the Sydney University Glycemic Index Research Service, coconut sugar has a glycemic index of 54, qualifying it as a low glycemic source of carbohydrate. Coconut palm sugar imparts a distinct caramel flavor with its sweetness to naturally enhance flavor while helping to contribute to a balanced carbohydrate composition found in a complete meal.

Sunflower (*Helianthus annuus*) Oil Powder (Natural):

Sunflower oil is extracted from the seeds of the sunflower, and is a neutral tasting plant oil rich in healthful unsaturated fatty acids. Sunflower oil provides a healthy source of dietary fats necessary to round out the balanced nutritional composition of a complete meal.

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Natural Flavors (Natural):

Natural flavors are naturally occurring compounds that contribute to the unique flavor profiles found in foods. These various flavors are taken from essential oils, resins, essences or extracts. Plexus Lean's natural flavors are uniquely blended to provide a classic milk chocolate and creamy vanilla flavor.

Flax (*Linum usitatissimum*) Seed Powder (Natural):

Flax seeds are an abundant source plant based omega-3 fatty acids and help to augment the healthy lipid profile in Plexus Lean™.

Sunflower Lecithin (Natural):

Lecithins are naturally occurring phospholipids that help to emulsify and suspend lipids to aid improve texture and ensure all ingredients dissolve into liquid well. Sunflower lecithin is less allergenic than more commonly used soy based lecithins.

Xanthan Gum (Natural):

Xanthan gum is a naturally occurring polysaccharide made from the fermentation of sugars. Small quantities help to stabilize solutions that are mixtures of water-soluble and fat-soluble ingredients to ensure an even consistency.

Protease Enzyme Blend (Natural):

Natural enzymes derived from *Aspergillus oryzae* and *Aspergillus niger* that have been added to enhance the digestion of whey protein and to help prevent gastrointestinal issues some may experience when ingesting high amounts of whey protein.

Stevia (*Stevia rebaudiana*) Leaf Extract (Natural):

Stevia is a perennial herb native to South America that has been used for centuries as a medicinal herb and a natural sweetener. The extract is prepared from the sweet-tasting leaves, and is standardized to 99% Rebaudioside A. The extract is then purified by filtration and crystallized into a compound that is typically 200 times sweeter than table sugar, and has zero-calories. Plexus® uses a 100% pure, Non-GMO *Stevia rebaudiana*.

Medium Chain Triglyceride Oil Powder (Natural):

Medium chain triglycerides naturally occur in palm and coconut oil. These shorter chain fats aid with the blending of other lipids like the flax seed and sunflower oils.

Cocoa Powder (Natural) (In the milk chocolate flavor only):

Cocoa powder is the fermented and dried seed of the cocoa tree. Cocoa is a naturally rich source of antioxidants, particularly procyanidins and flavonoids. Cocoa is a natural source of flavor, contributing the distinct chocolate taste the plant is known for.

Milk Chocolate

Nutrition Facts					
Serving Size 2 Scoops (40 g)					
Servings Per Bag 14 Meals					
Amount Per Serving	Powder	w/ 8 fl. oz. Nonfat Milk	Amount Per Serving	Powder	w/ 8 fl. oz. Nonfat Milk
			% Daily Value**		
Calories	170	250			
Calories from Fat	50	50			
			% Daily Value**		
Total Fat 6 g	9%	9%	Folate	10%	15%
Saturated Fat 2 g	10%	10%	Vitamin B12	4%	25%
Trans Fat 0 g			Biotin	8%	10%
Polyunsaturated Fat 1 g			Pantothenic Acid	2%	10%
Monounsaturated Fat 2.5 g			Phosphorus	8%	30%
Cholesterol 35 mg	12%	13%	Iodine	25%	60%
Sodium 140 mg	6%	10%	Magnesium	8%	15%
Potassium 250 mg	7%	18%	Zinc	10%	15%
Total Carbohydrate 14 g	5%	9%	Selenium	10%	20%
Dietary Fiber 5 g	20%	20%	Copper	25%	25%
Sugars 5 g			Manganese	50%	50%
Protein 15 g	30%	47%	Molybdenum	25%	35%
Vitamin A	6%	15%			
Vitamin C	15%	15%			
Calcium	10%	40%			
Iron	15%	15%			
Vitamin D	10%	40%			
Vitamin E	10%	10%			
Thiamin	15%	25%			
Riboflavin	20%	45%			
Niacin	25%	25%			
Vitamin B6	10%	15%			

Ingredients: Whey protein blend (whey protein concentrate, whey protein isolate), hydrolyzed guar gum, sunflower oil, organic coconut palm sugar, cocoa powder (processed with alkali), natural flavors, sunflower lecithin, medium chain triglyceride oil powder, flaxseed powder, xanthan gum, guar gum, iodized sea salt, protease enzyme blend (*Aspergillus niger*, *Aspergillus oryzae*), stevia (rebaudioside A), magnesium (magnesium hydroxide), vitamin E (d-alpha tocopherol), vitamin C (ascorbic acid, ascorbyl palmitate), iron (ferric orthophosphate), zinc (zinc citrate), niacin (niacinamide), iodine (potassium iodide), manganese (manganese citrate), copper (copper citrate), biotin (d-biotin), selenium (l-selenomethionine), vitamin A (beta carotene, retinyl palmitate), molybdenum (molybdenum glycinate), riboflavin (riboflavin 5-phosphate), vitamin D3 (cholecalciferol), pantothenic acid (calcium d-pantothenate), thiamin (thiamin mononitrate), vitamin B6 (pyridoxal-5 phosphate, pyridoxine hydrochloride), vitamin B12 (methylcobalamin), folate (L-methylfolate, calcium)

Contains: Milk

Creamy Vanilla

Nutrition Facts					
Serving Size 2 Scoops (39 g)					
Servings Per Bag 14 Meals					
Amount Per Serving	Powder	w/ 8 fl. oz. Nonfat Milk	Amount Per Serving	Powder	w/ 8 fl. oz. Nonfat Milk
			% Daily Value**		
Calories	170	250			
Calories from Fat	50	50			
			% Daily Value**		
Total Fat 6 g	9%	9%	Folate	10%	15%
Saturated Fat 2 g	10%	10%	Vitamin B12	4%	25%
Trans Fat 0 g			Biotin	8%	10%
Polyunsaturated Fat 1 g			Pantothenic Acid	2%	10%
Monounsaturated Fat 2.5 g			Phosphorus	6%	30%
Cholesterol 35 mg	12%	13%	Iodine	25%	60%
Sodium 135 mg	6%	10%	Magnesium	6%	15%
Potassium 140 mg	4%	15%	Zinc	10%	15%
Total Carbohydrate 14 g	5%	9%	Selenium	10%	20%
Dietary Fiber 5 g	20%	20%	Copper	25%	25%
Sugars 6 g			Manganese	50%	50%
Protein 15 g	30%	47%	Molybdenum	25%	35%
Vitamin A	6%	15%			
Vitamin C	15%	15%			
Calcium	10%	40%			
Iron	10%	10%			
Vitamin D	10%	40%			
Vitamin E	10%	10%			
Thiamin	15%	25%			
Riboflavin	20%	45%			
Niacin	25%	25%			
Vitamin B6	10%	15%			

Ingredients: Whey protein blend (whey protein concentrate, whey protein isolate), hydrolyzed guar gum, sunflower oil, organic coconut palm sugar, natural flavors, sunflower lecithin, medium chain triglyceride oil powder, flaxseed powder, xanthan gum, guar gum, iodized sea salt, protease enzyme blend (*Aspergillus niger*, *Aspergillus oryzae*), stevia (rebaudioside A), magnesium (magnesium hydroxide), vitamin E (d-alpha tocopherol), vitamin C (ascorbic acid, ascorbyl palmitate), iron (ferric orthophosphate), zinc (zinc citrate), niacin (niacinamide), iodine (potassium iodide), manganese (manganese citrate), copper (copper citrate), biotin (d-biotin), selenium (l-selenomethionine), vitamin A (beta carotene, retinyl palmitate), molybdenum (molybdenum glycinate), riboflavin (riboflavin 5-phosphate), vitamin D3 (cholecalciferol), pantothenic acid (calcium d-pantothenate), thiamin (thiamin mononitrate), vitamin B6 (pyridoxal-5 phosphate, pyridoxine hydrochloride), vitamin B12 (methylcobalamin), folate (L-methylfolate, calcium)

Contains: Milk