

# **A Word About Proteins**

Plexus Lean<sup>TM</sup> contains a blend of seven protein sources. 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.

# **Protein Quality and Scoring**

Even if you know the difference between a concentrate and an isolate, it's important to understand that the quality of the protein you use can vary greatly from brand to brand. Protein quality will tell you how effectively protein from a given source is used by the body by rating its essential amino acid composition, digestibility, and bioavailability. There are currently four accepted metrics of protein quality: protein efficiency ratio (PER), biological value (BV), net protein utilization (NPU), and protein digestibility corrected amino acid score (PDCAAS).

Plexus® feels the PDCAAS score is the most transparent and accurate method of determining the total amount of protein available for your body to use. The PDCAAS score of the pea protein in Lean is a 93/100, which is a high rating. That means 93% of the pea protein in this product can be utilized by the body. We help to offset that other 7% by complementing pea protein with rice protein and other ancient grains.

Many protein products will list the total amount of protein in their product, not the amount that is available to your body for use. For example, there is actually about 25g of protein in Plexus Lean, but utilizing the PDCAAS scoring method, we know that only 20g of that protein is utilized by the body. So, we put 20g on the label so you know exactly how much protein you're getting. No tricks here!

# **Plexus® Protein Blend:**

#### **Pea** (Isolate and concentrate):

Pea protein is a well digested and highly bioavailable plant based protein and is the primary source of protein in Plexus Lean™. Plexus Lean contains both isolate and concentrate sources. Pea protein has the added benefit of being a comprehensive plant based protein source that avoids the potential allergen concerns associated with more commonly used soy based protein sources. Pea protein is a "complete protein," and has a high protein quality score of .93 (93% bioavailability) on the PDCAAS scale.

#### Rice (Isolate):

Rice protein complements pea protein to ensure an optimally balanced protein composition that is entirely plant based.

#### Sacha Inchi (Natural):

Sacha inchi, also known as the Inca peanut<sup>†</sup>, is the seed of a plant that grows in the Amazon rainforest.

#### Amaranth (Natural):

Amaranth is an ancient grain, and was a staple crop of the native people of South America. Commonly recognized by its distinct purple colour in some species, amaranth is rich in the essential amino acid lysine, which is not found in adequate amounts in other cereal grains like corn and wheat.

# Quinoa (Natural):

Quinoa is an ancient grain in the same family of amaranth native to northwestern South America.

#### Buckwheat (Natural):

Buckwheat is an ancient grain native to southeast Asia and an important staple in regions with poor soil quality.

### Millet (Natural):

Millet is an ancient grain and an important protein source in the semi-arid regions of Asia and Africa. Millet protein is rich in essential amino acids except lysine. When millet is complemented by buckwheat and amaranth proteins, which are rich sources of lysine, it rounds out the protein nutritional profile.

### Chia (Natural):

Chia is an ancient grain native to central America. The protein found in chia seeds has all 9 essential amino acids and is considered a complete plant based protein source.

# **Vitamin and Mineral Blend:**

#### **Vitamin A** (as beta carotene and retinyl palmitate):

Vitamin A is a fat-soluble vitamin involved in a range of functions in the body. We need vitamin A to contribute to the normal function of the immune system, to the maintenance of normal vision, and to aid in the maintenance of the health of the skin and membranes. Once inside the body. Our body only converts as much vitamin A from beta-carotene as it needs which means beta-carotene is considered a safe source of vitamin A.

#### **Vitamin C** (as ascorbic acid and ascorbyl palmitate):

Vitamin C is an essential water-soluble vitamin that promotes a wide range of functions in the human body including energy metabolism, antioxidant activity, and protects against the oxidative effects of free radicals.

#### **Iron** (as ferric pyrophosphate):

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 responsible for transporting oxygen throughout the body. Iron is a factor in red blood cell formation.

# Vitamin D3 (as cholecalciferol):

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 builds and maintains strong bones and teeth. There are several forms of vitamin D but the form primarily utilized by the human body is cholecalciferol (vitamin D3).

#### **Vitamin E** (as d-alpha tocopherol succinate):

Vitamin E is an essential nutrient with antioxidant properties. The vitamin E in Plexus Lean is derived from non-GMO sunflower oil.

#### **Vitamin B1;** Synonyms: Thiamine (as thiamine mononitrate):

Vitamin B1 plays a role in certain metabolic reactions and functions as a co-enzyme in energy production and carbohydrate metabolism.

**Vitamin B2;** Synonyms: Riboflavin (as riboflavin 5-phosphate sodium): Vitamin B2 is a factor in energy metabolism and tissue formation.

## **Niacin:** (as niacinamide):

Niacin aids in normal growth and development and is a factor in energy metabolism and tissue formation.

Nicotinamide is a non-flushing form of vitamin B3.



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

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 a factor in energy metabolism and tissue formation.

## Folate, Vitamin B9 (as L-methylfolate):

Folic acid is the supplemental form of folate, and is important in the utilization of proteins (amino acids) and DNA synthesis. Folic acid also plays an important role in pregnancy. Typical dietary folate and folic acid must first be converted by our body to tetrahydrofolate (THF), and then finally into L-methylfolate (5-MTHF) before it can be used. By using 5-MTHF in Plexus Lean, we skip the conversion steps, making it easier for your body to utilize.

**Vitamin B12;** Synonyms: Methylcobalamin (as molybdenum glycinate): Vitamin B12 aids in red blood cell formation and helps in energy metabolism. Methylcobalamin is a bioactive and bioavailable form, immediately ready to be used by our body, and is vegetarian friendly.

# **Biotin;** Synonyms: Vitamin B7 (as d-biotin):

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

**Pantothenic Acid;** Synonyms: Vitamin B5 (as D-calcium pantothenate) Pantothenic acid has a role as a cofactor for enzymes involved in the metabolism of fats, carbohydrates and proteins, and helps to regulate 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.

## **Calcium** (as calcium citrate):

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 citrate is a highly absorbable form of calcium.

## Magnesium (as magnesium hydroxide):

Magnesium is one of the most abundant minerals in the human body, with half of magnesium located in the bones and teeth. Our magnesium is from natural marine source, which also contains over 50 trace minerals from the Irish Sea.

# **Zinc** (as zinc citrate):

Zinc is an essential trace mineral that acts as a cofactor in approximately 300 different enzyme reactions and as a part of a well-balanced diet, contributes to the maintenance of normal skin, and immune system function,

## **Selenium** (as l-selenomethionine):

Selenium is a dietary antioxidant involved in the formation of a protein that defends against oxidative stress. 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):

Copper is an essential trace mineral that contributes to the maintenance of normal connective tissue health. Copper citrate is a highly bioavailable form of copper.

## **lodine** (as potassium iodide):

Iodine is an essential mineral nutrient. Iodine is a factor in the normal function of the thyroid gland. Potassium iodide is a common form of iodine that readily dissolves and is well absorbed.

# Manganese (as manganese citrate):

Manganese is an essential trace mineral that helps activate and synthesize important enzymes and nutrients that contribute to the formation and maintenance of bones. Manganese citrate is a highly bioavailable form of manganese.

# **Molybdenum** (as molybdenum glycinate):

Molybdenum is an essential trace mineral that helps to maintain the body's ability to metabolize nutrients. Molybdenum glycinate is a highly absorbable form of molybdenum.



### **Sodium** (as monosodium phosphate):

Sodium is an essential nutrient found in many foods. Our bodies need a small amount of sodium to be healthy,

### Potassium (as dipotassium phosphate):

Potassium is an essential mineral important that can be a factor in the regulation of fluid balance.

#### Cocoa Powder (Natural):

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.

# Coconut Palm Sugar (Organic):

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 sweetener. 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:

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.

## Natural Flavors:

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 give a rich mocha flavor to complement the natural flavors already present in the Plexus Pea Protein Blend.

#### Leucine

Leucine is a branched chain essential amino acid. The leucine content of a protein is the key indicator of that proteins' ability to stimulate muscle protein synthesis. Proteins high in leucine are better equipped to help support muscle. Plexus Lean  $^{\text{TM}}$  complements our pea protein blend with additional leucine for muscle support.

#### Flax (Linum usitatissimum) Seed Powder:

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:**

Lecithins are naturally occurring plant fats used to help ensure an even, balanced, smooth texture, and to help all the healthful ingredients in Plexus Lean to dissolve and blend well.

#### **Guar Gum:**

Guar gum is a naturally occurring polysaccharide derived from guar beans that is a soluble fiber. Due to its attraction to water, it is used in small quantities to both thicken and improve the texture of liquids.

# **Prebiotic Blend:**

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 parts of food which are indigestible in the upper gastrointestinal tract and reach the colon, helping to selectively promote the growth and/or activity of certain bacteria in the colon that provide general wellbeing.

# Short-chain fructo-oligosaccharides (Naturally derived):

Short-chain fructo-oligosaccharides (scFOS) occur naturally in several plants such as asparagus, wheat, Jerusalem artichokes, and rye.

# Alpha-galactooligosaccharides (Naturally derived):

Galacto-oligosaccharides (GOS) are created by enzymes found in bacteria and fungi using lactose, but the a-GOS source in Plexus Lean is plant based. Prebiotic GOS are indigestible but can be utilized by resident gut microbes and may beneficially affect beneficial bacteria in the gut.

# **Xyloologosaccharides** (Naturally derived):

Xylo-oligosaccharides (XOS) are naturally present in fruits, vegetables, and bamboo. Prebiotic XOS are indigestible but can be utilized by resident gut microbes and may beneficially affect beneficial bacteria in the gut.

# **Protease Enzyme Blend:**

#### From Bacillus subtilis:

This microbe is naturally found in soil and vegetation and secretes a variety of enzymes used to break down plant material.

#### From Ananas comosus:

More commonly known as pineapple, Ananas comosus produces a potent protease known as bromelain, added to aid in the digestion and bioavailability of the plant based proteins in Plexus Lean.

#### Stevia (Stevia rebaudiana) Leaf Extract:

Stevia is a perennial 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 sweetest molecular compound in stevia. The extract is then purified by filtration and crystallized into a powder that is typically 200 times sweeter than table sugar, and has zero calories. Plexus® uses a 100% pure, Non-GMO Stevia rebaudiana.

#### Xanthan Gum:

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.

# Medium Chain Triglyceride Oil Powder:

Medium chain triglycerides naturally occur in coconut oil. These shorter chain fats aid with the blending of other lipids like the flax seed and sunflower oil found in Plexus Lean<sup>TM</sup>.

# **Nutrition Facts**

Serving Size Meal - 2 Scoops (60 g)

Servings Per Bag 14	Meals		
Amount Per Serving			
Calories 230		Cal	ories from Fat 60
			% Daily Value*
Total Fat 7 g			11%
Saturated Fat 1.5 g			8%
Trans Fat 0 g			0%
Polyunsaturated 1.5	g		
Omega 6 (Linolei	c Acid) 1.3 g		
Omega 3 (n-3 Lin	olenic Acid) 0.3	g	
Monounsaturated 3.	.5 g		
Cholesterol 0 mg			0%
Sodium 560 mg			23%
Potassium 630 mg			18%
Total Carbohydrate 1	7 g		6%
Dietary Fiber 7 g	_		28%
Sugars 7 g			
Protein 20 g			40%
Vitamin A 35%	•	Vitamin C 25%	
Calcium 25%	•	Iron 50%	
Vitamin D 15%	•	Vitamin E 10%	
Thiamin 20%	•	Riboflavin 25%	
Niacin 30%	•	Vitamin B6 20%	
Folate 15%	•	Vitamin B12 4%	
Biotin 8%	•	Pantothenic Acid 1	5%
Phosphorus 60%	•	lodine 25%	
Magnesium 30%	•	Zinc 40%	
Selenium 20%	•	Copper 40%	
Manganese 50%	•	Molybdenum 45%	
*Percent Daily Values are ba	ased on a 2,000 ca		s may be higher or
lower depending on your ca	lorie needs:	•	
	Calories:	2,000	2,500
Total Fat	Less than	65 g	80 g
Saturated Fat	Less than	20 g	25 g
Cholesterol	Less than	300 mg	300 mg
Sodium	Less than	2,400 mg	2,400 mg
Potassium Total Control volunte		3,500 mg	3,500 mg
Total Carbohydrate		300 g	375 g
Dietary Fiber		25 g	30 g

Ingredients: Protein blend (Pea protein isolate, rice protein isolate, pea protein concentrate, sacha inchi, amaranth, quinoa, buckwheat, millet, chia), organic coconut palm sugar, cocoa powder (processed with alkali), sunflower (Helianthus annuus) oil powder, prebiotic and protease enzyme blend (short-chain fructooligosaccharides, Bacillus subtilis, Ananas comosus,

alpha-galactooligosaccharides, xylooligosaccharides), natural flavors, flax (*Linum usitatissimum*) seed powder, sunflower lecithin, guar gum, leucine, xanthan gum, stevia (*Stevia rebaudiana*) leaf extract, medium chain triglyceride oil powder.