



# product information sheet

## grass fed whey protein

• rBGH Free • rBST Free • Gluten Free

No Artificial Flavors, Colors or Sweeteners

**23g** **5g** **3g** **0g**

PROTEIN BCAAs GLUTAMINE TRANS FAT

-in each serving.



Size: 1.83 LBS (832 G) | Serving Size: 1 Scoop (32 G) Servings Per Container: 26 Approx.

Flavor: Chocolate Silk, Vanilla Swirl

**grass fed whey protein** provides the purest and highest quality grass-fed whey protein concentrate (gfWPC) to fuel your body on a daily basis. Whey protein is one of the most heavily researched nutritional ingredients for the active lifestyle marketplace. The gfWPC comes from cows that are grass fed year round and not treated with recombinant bovine growth hormone (rBGH), recombinant bovine somatotropin (rBST) or antibiotics. The cows are free to roam in open pastures untainted by pesticides.

**grass fed whey protein** contains all the essential and non-essential amino acids and is naturally rich in glutamine and the branched-chain amino acids (BCAA). Research suggests that by supplying the body with high-quality whey protein every 3 to 4 hours, it is possible to elevate nitrogen levels and increase the body's ability to build and maintain muscle growth and strength. Research has also shown that this anabolic effect is enhanced when combined with resistance training. Whey protein also supports improved body composition, bone health and immune system function.<sup>†</sup>

The gfWPC used in **grass fed whey protein** is manufactured by a gentle low temperature ultrafiltration process. This modern and advanced purification process produces over 99% non-denatured amino acids which yields more intact whey protein fractions in addition to the bioactive peptides beta-lactoglobulins, alpha-lactoglobulins, serum albumin, lactoferrin.<sup>†</sup>

**grass fed whey protein** contains 5 grams per serving of naturally occurring branched-chain amino acids (BCAA) leucine, isoleucine and valine. The BCAA, especially leucine, have powerful anabolic effects on protein metabolism by increasing the rate of protein synthesis, decreasing the rate of protein degradation and promoting recovery. The anabolic effects of both whey protein and the BCAAs combined with exercise stimulates skeletal muscle gene expression.<sup>†</sup> Muscle protein

synthesis (MPS) is a complex process and involves transcriptional co-regulators, myogenic regulatory factors and the phosphorylation of the mammalian target of rapamycin (mTOR). Myogenic regulatory factors or MRFs include Myo-D, myogenin, MRF-4 and myf5 and are a family of p70 muscle-specific transcription factors that play a critical role in muscle cell hypertrophy (increases in muscle cell size). Muscle mTOR is the master controller of protein synthesis integrating signals from growth factors within the parameters of the energy and nutritional conditions of the cell. Muscle mTOR are muscle enzyme activators of protein synthesis and supported by whey protein and the BCAA, especially leucine and exercise. The positive effect of supplying whey proteins rich in the BCAA are mediated through signaling pathways controlling protein synthesis involves phosphorylation of the target enzymes mTOR and the sequential stimulation of p70 ribosomal S6 kinase (p70 S6K) through the regulation of mRNA translation and other cell growth-related responses. The mTOR pathway in muscle is upregulated during the hypertrophy phase.<sup>†</sup>

**grass fed whey protein** also provides 3 grams per serving of naturally occurring glutamine. Glutamine is considered a "workhorse" amino acid and the most abundant amino acid in the blood and skeletal muscle. Glutamine is often depleted due to over training, stress and poor diet. Research indicates that body builders, fitness and strength athletes, and other active people often do not produce enough glutamine in their liver to restore critical glutamine levels within a reasonable time frame following training. Glutamine is critical to minimize muscle

(cont'd on p2)

### Typical (Approximate) Amino Acid Profile Per Serving of NatlurLiga™ Grass-Fed Whey Protein Grams Protein (Per 32g Serving)

Amino Acid	g/32g Serving
Alanine	1.05g
Arginine	0.50g
Aspartic Acid	2.30g
Cystine/Cysteine	0.54g
Glutamine	3.00g
Glycine	0.40g
Histidine <sup>®</sup>	0.43g
Isoleucine <sup>**e</sup>	1.45g
Leucine <sup>**e</sup>	2.40g
Lysine <sup>®</sup>	1.97g
Methionine <sup>®</sup>	0.46g
Phenylalanine <sup>®</sup>	0.74g
Proline	1.19g
Serine	1.03g
Threonine <sup>®</sup>	1.39g
Tryptophan <sup>®</sup>	0.37g
Tyrosine	0.65g
Valine <sup>**e</sup>	1.32g

\*\*Branched-Chain Amino Acid

<sup>e</sup>Essential Amino Acid – an amino acid that cannot be made by the body

### key features:

- Pure and Clean Source of High Quality Grass-Fed Whey Protein Concentrate.
- Produced from Low Temperature Ultrafiltration Technology.
- Provides 23g of Protein Per Serving.
- Naturally Rich in the BCAAs and Glutamine.
- Versatile Use Throughout the Day to Maintain Positive Nitrogen Balance and Positive Anabolic State.
- Made with Natural Ingredients
- rBGH and rBST Free
- No Artificial Flavors, Colors or Sweeteners
- Gluten-Free
- Non-GMO Ingredients

### key messages:

- Whey protein is one of the most heavily researched nutritional supplements.
- Developed to provide your body with an economical and consistent source of pure and high quality whey protein.
- Provides the highest quality WPC to promote optimal nitrogen levels for increasing muscle mass, muscle strength and recovery from all forms of exercise.<sup>†</sup>
- Delivers 5g/serving of naturally occurring BCAA. Combined with exercise the BCAA, especially leucine, stimulates skeletal muscle gene expression and promotes transcriptional co-regulators, myogenic regulatory factors and the phosphorylation of the mammalian target of rapamycin (mTOR).<sup>†</sup>
- Provides 3g/serving of naturally occurring glutamine. Glutamine is critical to minimize muscle breakdown and repairs heavily trained muscles and supports the natural production of human growth hormone.<sup>†</sup>
- Provides 10%DV calcium, 10%DV phosphorus, 5%DV magnesium, and 25%DV iron per serving.

(cont'd on p2)



<sup>†</sup>These statements have not been evaluated by the Food and Drug Administration. This products is not intended to diagnose, treat, cure or prevent any disease.

**Size:** 1.83 LBS (832 G) | **Serving Size:** 1 Scoop (32 G) **Servings Per Container:** 26 Approx.

**Flavor:** Chocolate Silk, Vanilla Swirl

## Nutrition Facts

Serving Size: One (1) Scoop (32 g)  
Servings Per Container: 26 (Approx.)

Amount Per Serving		% DV*
<b>Calories</b>	123	
Calories from Fat	19	
<b>Total Fat</b>	2 g	3%
Saturated Fat	1 g	5%
Trans Fat	0 g	
<b>Cholesterol</b>	58 mg	19%
<b>Sodium</b>	101 mg	4%
<b>Potassium</b>	120 mg	3%
<b>Total Carbohydrate</b>	2 g	1%
Dietary Fiber	0 g	0%
Sugars	2 g	
<b>Protein</b>	23 g	46%
Phosphorus	97 mg	10%
Magnesium	20 mg	5%

**Vitamin A 0% • Vitamin C 0% • Calcium 10% • Iron 25%**

\*Percent Daily Values are based on a 2,000 calorie diet.  
Your Daily Values may be higher or lower depending on your calorie needs.

	Calories	2000	2500
<b>Total Fat</b>	Less Than	65 g	80 g
<b>Saturated Fat</b>	Less Than	20 g	25 g
<b>Cholesterol</b>	Less Than	300 mg	300 mg
<b>Sodium</b>	Less Than	2400 mg	2400 mg
<b>Potassium</b>	Less Than	3500 mg	3500 mg
<b>Total Carbohydrate</b>		300 g	375 g
<b>Dietary Fiber</b>		25 g	30 g
<b>Calories Per Gram</b>	Fat 9 - Carbohydrate 4 - Protein 4		

(cont'd from p.1)

breakdown and repair heavily trained muscles and support the natural production of human growth hormone, which is also important to muscle recovery and gains. Glutamine also supports the immune system and allows for more intense training.<sup>†</sup>

Research shows that a continuous intake of whey protein throughout the day is most effective in maintaining positive nitrogen balance and a positive anabolic state. **grass fed whey protein** can easily be incorporated into your daily routine; before exercise, during exercise, after exercise, in between-meals and as a bedtime supplement. This continuous flow of calories and protein helps to saturate your muscles with fuel and amino acids for optimal protein synthesis.<sup>†</sup>

For active individuals to achieve positive nitrogen balance, most experts recommend 1.5 – 2.0 grams protein per kilogram body weight.

### key messages: (cont'd from p.1)

- *Whey protein also supports improved body composition, bone health and immune system function.<sup>†</sup>*
- *Manufactured in the U.S.A. in a manufacturing facility that meets current Good Manufacturing Practices (cGMP)*
- *Gluten-free product.*
- *Instantized for easy mixing and assimilation.*

**Directions:** Mix 1 scoop with 8-10 ounces of cold water, milk, juice or any other beverage of your choice. Add more or less water to adjust sweetness. Increase serving size for higher protein content. Suggested use before, during and after your workouts or throughout the day.

**Ingredients (Vanilla Swirl):** Grass-fed whey protein concentrate, natural flavors, monk fruit (luo han guo), evaporated cane juice, cellulose gum, sodium chloride (salt).

**Ingredients (Chocolate Silk):** Grass-fed whey protein concentrate, natural flavors, evaporated cane juice, monk fruit (luo han guo), cellulose gum, sodium chloride (salt).

**Contains:** Milk

Manufactured in a cGMP facility that processes milk, egg, fish, Crustacean shellfish, tree nuts, wheat and soybeans.

**KEEP OUT OF REACH OF CHILDREN. STORE IN A COOL, DRY PLACE AWAY FROM MOISTURE AND SUNLIGHT. ALWAYS KEEP TIGHTLY SEALED.**

**WARNING:** Consult a physician before starting any diet and exercise program and before using this product. Consult a physician before using this product if you are pregnant, nursing, trying to conceive, under the age of 18, have a medical condition or taking medications. Do not use this product for weight reduction. Very low calorie protein diets (below 400 calories per day) may cause serious illness or death.

### target market:

**Primary:** Bodybuilders and athletes that require a pure, high quality and economical whey protein concentrate to support muscle protein synthesis and recovery.

**Secondary:** Anyone with an active lifestyle requiring higher amounts of protein throughout the day.

### recommended stack:

- **Max EFA**
- **CX3**
- **Carbomax**
- **Max Power Greens**

### key references:

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15. Ueda Y, Asakuma S, Miyaji M, Akiyama F. Effect of time at pasture and herbage intake on profile of volatile organic compounds of dairy cow milk. Anim Sci J. Jan;87(1):117-25.
16. Knaus W. Perspectives on pasture versus indoor feeding of dairy cows. J Sci Food Agric. 2016 Jan 15;96(1):9-17.



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