

## Klean Casein

Natural Vanilla Custard Flavor

### DESCRIPTION

Klean Casein by Klean Athlete is a NSF Certified for Sport® supplement that supplies 24 grams of high-quality protein from micellar casein in each serving. Casein is a slow-digesting protein that may help support recovery after exercise. In addition, casein contains naturally occurring electrolytes (sodium and potassium) to help replenish hydration lost during activity.†

Klean Casein is tested and certified by the NSF Certified for Sport® program, which was created to meet the growing demands of athletes, coaches and healthcare professionals to certify that sports supplements are safe and completely free from banned substances. Every product that carries the NSF Certified for Sport® mark has undergone stringent laboratory testing to confirm content, purity and compliance.

### FUNCTIONS AND MECHANISM OF ACTION

The dietary protein provided by Klean Casein supplies essential amino acids, including branched-chain amino acids, that participate in many of the body’s metabolic and physiologic systems. Protein turnover in the body is continuous and can be substantial. The rebuilding of skeletal muscle that is broken down during exercise is critically important to athletes. The dynamics of this constant degradation and re-synthesis demand a daily supply of dietary protein and their constituent amino acids. Essential or indispensable dietary amino acids must be supplied by the diet, as they are not synthesized by the body.

Recent analyses of dietary protein requirements suggest that age and activity level may influence those requirements for optimum health. Some scientists have also suggested that increased protein synthesis follows prolonged exercise. Athletes competing in bodybuilding or endurance sports may require significantly more total protein from food and supplements combined, typically in ranges of 1.0-1.5 g protein/kg of body weight.‡

As a slow-digesting protein, casein has unique features that separate it from other protein products. Slow-digesting proteins provide a steadier release of amino acids into the bloodstream compared to fast-digesting proteins, such as whey isolate. Casein helps to maintain a positive nitrogen balance and facilitate muscle recovery from exercise.‡

### FORMULA (KA57777P)

Serving Size 1 Scoop (approx. 30.7g)

Servings Per Container approx. 20

Amount Per Serving

Calories .....	110
Cholesterol .....	20 mg
Total Carbohydrate.....	2 g
Dietary Fiber.....	1 g
Total Sugars.....	<1 g
Protein.....	24 g
Calcium .....	530 mg
Sodium .....	110 mg

Other Ingredients: Micellar casein (milk), natural flavors, salt, stevia leaf extract, monk fruit extract.

Gluten-free, Non-GMO

#### Typical Amino Acid Profile from Casein

Alanine .....	672 mg
Arginine .....	710 mg
Aspartic acid.....	1579 mg
Cystine .....	158 mg
Glutamic acid.....	4375 mg
Glycine .....	374 mg
Histidine .....	509 mg
L-Isoleucine .....	1,068 mg
L-Leucine.....	2,011 mg
L-Lysine.....	1,757 mg
L-Methionine .....	602 mg
L-Phenylalanine.....	996 mg
L-Proline .....	2028 mg
L-Serine.....	1152 mg
L-Threonine .....	910 mg
L-Tryptophan .....	310 mg
L-Tyrosine.....	1042 mg
L-Valine.....	1,284 mg

### **SUGGESTED USE**

Adults take 1 scoop mixed into 10-12 ounces of water or other beverage, or as directed by trainer, coach or healthcare professional.

### **WARNING**

If you are pregnant, nursing, have any health condition or taking any medication, consult your healthcare professional before using this product.

Keep out of reach of children.

### **STORAGE**

Store in a cool, dry place, away from direct light. Use only if safety seal is intact.

### **REFERENCES**

- Beasley, JM, Shikany, JM, Thomson CA. Nutr Clin Pract. 2013 Dec; 28(6): 684–690
- Bendtsen LQ, Lorenzen, JK, Bendtsen, NT, Rasmussen, C, Astrup, A. Adv Nutr. 2013 Jul 1;4(4):418-38.
- Lemon, PW. J Am Coll Nutr 2000;19:513S-521S.
- Reis, CEG, Loureiro LMR, Roschel H, da Costa, THM. J Sci Med Sport. 2021 Feb;24(2):177-182.
- Rankin, JW. Clin Sports Med 1999;18:499-511, vi.
- Ritz, P. Eur J Clin Nutr 2000;54:S21-S25.
- Tarnopolsky, MA. Curr Opin Clin Nutr Metab Care 1999;2:533-7.
- Trommelen J, van Loon, LJC. Nutrients. 2016 Dec; 8(12): 763.
- Young, VR, Borgonha, S. J Nutr 2000;130:1841S-9S

**For more information on Klean Casein, visit [kleanathlete.com](https://kleanathlete.com)**

†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.

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