PRODUCT DATA KLEAN ATHLETE® 9/2020

# Klean Endurance

### DESCRIPTION

Klean Endurance are all-natural D-ribose supplements clinically studied to help restore and replenish core energy. D-ribose is a natural pentose sugar that supports cardiovascular health, promotes energy production and mitochondrial function, and improves recovery and performance after exercise.<sup>‡</sup>

Klean Endurance 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.

#### INDICATIONS

- Support for cellular ATP energy production<sup>‡</sup>
- Mitochondrial support<sup>‡</sup>

# FUNCTIONS AND MECHANISM OF ACTION

D-ribose is a naturally occurring monosaccharide that is found in all cells and is involved in mitochondrial energy production. D-ribose is a substrate of the adenosine triphosphate (ATP) molecule, which is responsible for proper cell function and maintenance, including the synthesis of DNA and RNA. The pentose phosphate pathway (PPP) forms ribose-5-phosphate to ultimately produce ATP. This process is slow, as it requires a rate-limiting enzyme called glucose-6-phosphate dehydrogenase (G6PD). Alternatively, supplemental D-ribose may bypass the need for G6PD via purine metabolism, which occurs in the mitochondria. This process is more efficient, as it enables cells to efficiently reuse ATP metabolites to form new ATP molecules.‡

D-ribose plays a critical role in energy metabolism by restoring and enhancing ATP concentrations. Clinical studies have shown that supplementation with D-ribose improved blood flow and enhanced the recovery rate of ATP synthesis, thus restoring cardiac energy metabolism. Following exercise, skeletal muscle ATP levels are depleted and may impact recovery time and subsequent performance. Supplemental D-ribose has been shown to restore tissue energy levels and improve recovery and performance in humans. The involvement of ribose in mitochondrial energy production may also indicate a supportive role of D-ribose in overall mitochondrial function and quality.<sup>‡</sup>

# **FORMULA (#KA202598)**

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Serving Size 1 chewable tablet:	
Calories	10
Total Carbohydrates	2 g
Sugars (from D-Ribose)	1.67 g
Sugar Alcohol	0.5 g
D-Ribose	1.67 g

Other ingredients: Xylitol, microcrystalline cellulose, hydroxypropyl cellulose, silica, natural orange flavor, vegetable stearate, citric acid, mannitol, stearic acid, carnauba wax and natural vanilla flavor

### SUGGESTED USE

Adults take 1 chewable tablet one to three times daily with a meal, or as directed by a health professional.

# **WARNING**

Mild, transient hypoglycemia may occur if taken on an empty stomach. Insulin-dependent diabetics and pregnant women should consult their physician before use. Ribose may cause a transient increase in uric acid levels; therefore, those that have chronic gout should consult their physician before use.

#### **STORAGE**

Store in a cool, dry place, away from direct light. Keep out of reach of children.

### REFERENCES

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### For more information on Klean Endurance, visit kleanathlete.com

<sup>‡</sup>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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