



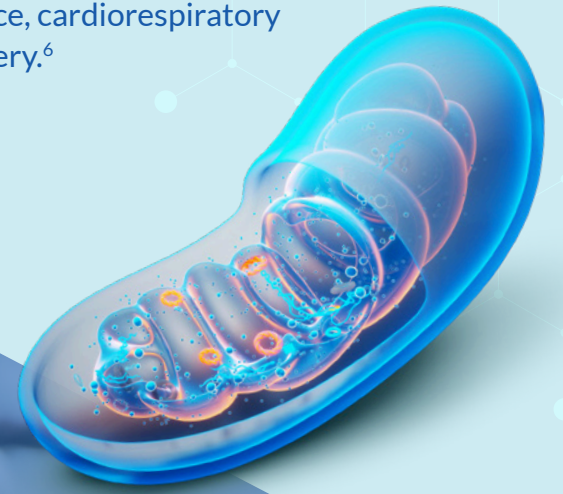
Kaneka Ubiquinol® and Sports Nutrition

Supporting Energy Metabolism and Cellular Wellness During Exercise

Ubiquinol, the active antioxidant form of coenzyme Q10 (CoQ10), plays a vital role in sports nutrition, supporting mitochondrial and cellular health. It promotes cellular energy production and neutralizes reactive oxygen species (ROS)^{1,2}, natural byproducts of energy metabolism that can damage proteins, lipids, and DNA over time, if their levels exceed the cells' antioxidant defenses.

Mitochondrial Health, Oxidative Stress, and Exercise

- + Mitochondria support muscle contraction by generating adenosine triphosphate (ATP), the cell's main energy source.³
- + Exercise increases ATP demand, which raises oxygen use and the production of ROS.⁴
- + Excess ROS can drive oxidative stress, reducing muscle function and contributing to fatigue.⁵
- + High altitude can add to the physiological load and affect endurance, cardiorespiratory performance, and recovery.⁶



Kaneka Ubiquinol® Supplementation and Exercise Performance

Ubiquinol and ubiquinone (CoQ10) are located in the mitochondrial membrane, where energy production and ROS generation occur. While both forms of CoQ10 support ATP production,^{1,2} only ubiquinol acts as an antioxidant to help maintain oxidative balance during periods of increased metabolic demand.⁷

Research Shows That Kaneka Ubiquinol® Supplementation Provides Nutritional Support During Exercise By:

Neutralizing ROS

Reducing free radicals generated during strenuous exercise⁷

Supporting Cardiovascular Performance

Helping sustain nitric oxide levels during exercise, which supports circulation and the delivery of oxygen and nutrients⁷

Enhancing Performance in Elite Athletes

Improving peak power production in elite athletes when taken at 300 mg per day⁸

Supporting Exercise Performance at High Altitudes

- Reducing fatigue at high altitudes⁹
- Promoting cardiovascular output at high altitudes^{9,10}
- Supporting the body's capacity for efficient oxygen delivery during exercise at high altitudes^{9,10}

In a clinical study evaluating exercise performance at high altitude, participants who took 200 mg of Kaneka Ubiquinol® daily for 17 days showed about a 50% smaller decline in cardiorespiratory fitness than those on placebo (11% versus 21%).¹⁰

Kaneka Ubiquinol® is certifiable for sport within the World Anti-Doping Agency (WADA) Code.

The Kaneka Ubiquinol® Advantage

50

50 years of ubiquinone and ubiquinol research and testing

100+

Subject of 100+ research studies

18+

18+ years of positive consumer experience with Kaneka Ubiquinol® supplementation



Free of impurities commonly found in synthetic CoQ10



Bioidentical to the ubiquinol naturally produced in the human body



Made in the USA

Read the Fact Sheet

Kaneka
NUTRIENTS



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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.

References
1. Benninger M, Brismar K, Dallner G. The antioxidant role of coenzyme Q. *Mitochondrion*. 2007;7 Suppl:S41-50.
2. Ernster L, Forsmark-Andrée P. Ubiquinol: an endogenous antioxidant in aerobic organisms. *Clin Invest*. 1992;71(8 Suppl):S60-5.
3. Martini FH. Metabolism, nutrition, and energetics. In: *Fundamentals of Anatomy and Physiology*. 12th ed. Prentice Hall; 2024:943-50.
4. Milotello R, Luti S, Gamberi T, Pellegrino A, Modesti A, Modesti PA. Physical activity and oxidative stress in aging. *Antioxidants* (Basel). 2024;13(5):557.
5. Clemente-Suárez VJ, Bustamante-Sánchez A, Mielgo-Ayuso J, Martínez-Guardado I, Martín-Rodríguez A, Tornero-Aguilera JF. Antioxidants and sports performance. *Nutrients*. 2023;15(10):2371.
6. Gaur P, Prasad S, Kumar B, Sharma SK, Vats P. High-altitude hypoxia induced reactive oxygen species generation, signaling, and mitigation approaches. *Int J Biometeorol*. 2021;65(4):601-15.
7. Sarmiento A, Diaz-Castro J, Pulido-Moran M, et al. Short-term ubiquinol supplementation reduces oxidative stress associated with strenuous exercise in healthy adults: a randomized trial. *Biofactors*. 2016;42(6):612-22.
8. Alf D, Schmidt ME, Siebrecht SC. Ubiquinol supplementation enhances peak power production in trained athletes: a double-blind, placebo-controlled study. *J Int Soc Sports Nutr*. 2013;10:24.
9. Liu Z, Yang J, Yang B, et al. Effect of ubiquinol on electrophysiology during high-altitude acclimatization and de-acclimatization: a substudy of the Shigatse CARdiorespiratory Fitness (SCARF) randomized clinical trial. *Int J Cardiol*. 2024;401:131817.
10. Lv H, Liu Z, Sun M, et al. Cardiorespiratory fitness and effects of ubiquinol during high-altitude acclimatization and deacclimatization: the SCARF trial. *IScience*. 2025;28(3):112112.