



## Kaneka Ubiquinol® and Exercise Performance

**Kaneka Ubiquinol®, manufactured by Kaneka Nutrients, supports energy metabolism and cellular wellness during exercise.**

Mitochondria power muscle contraction by producing adenosine triphosphate (ATP) through the electron transport chain (ETC).<sup>1</sup> During exercise, the increased demand for ATP also raises oxygen consumption and accelerates the production of reactive oxygen species (ROS).<sup>2</sup> While moderate ROS levels play a role in signaling and supporting training adaptations, excess ROS can contribute to oxidative stress, impairing muscle function and increasing fatigue.<sup>3</sup>

The amount of ROS generated varies with exercise type, intensity, and duration as well as an individual's fitness level, age, and nutritional status.<sup>2</sup> High-intensity or prolonged training, low fitness levels, and aging all increase the likelihood of oxidative stress.<sup>2</sup> Environmental factors, such as high altitude, can add to the physiological burden, further affecting endurance, cardiorespiratory performance, and recovery.<sup>4</sup>

**Ubiquinol, the active antioxidant form of coenzyme Q10, plays an important role in cellular energy production and antioxidant defense.**<sup>5,6</sup> Positioned within the mitochondrial membrane where energy production takes place and where ROS are generated, ubiquinol supports efficient electron transfer within the ETC<sup>5,6</sup> while helping maintain oxidative balance during periods of increased metabolic demand.<sup>7</sup>

**Research demonstrates that Kaneka Ubiquinol® supports exercise performance by:**

**Supporting energy metabolism<sup>8</sup>**

**Promoting a healthy oxidative balance during exercise<sup>7</sup>**

**Helping sustain nitric oxide (NO) levels during exercise, which signals blood vessels to dilate, improving circulation and the delivery of oxygen and nutrients<sup>7</sup>**



**Enhancing peak power production in elite athletes when taken at 300 mg/day<sup>8</sup>**

**Supporting cardiovascular performance when training at high altitude<sup>9,10</sup>**

In a clinical study evaluating the effects of Ubiquinol supplementation on exercise performance at high altitude, **participants taking 200 mg of Kaneka Ubiquinol® per day for 17 days reduced the decline in cardiorespiratory fitness by almost half compared to the placebo**—a decrease of 11% in the Ubiquinol group versus 21% for placebo.<sup>10</sup>

**Kaneka Ubiquinol® is bioidentical to the ubiquinol naturally produced in the body** and is certifiable for sport within the World Anti-Doping Agency (WADA) Code.

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.



### Kaneka Ubiquinol®



**Promotes energy metabolism and supports athletic performance<sup>7,10</sup>**



**Reduces free radicals generated during strenuous exercise<sup>7,9,10</sup>**



**Helps sustain nitric oxide levels during exercise<sup>7</sup>**



**Enhances physical performance in elite athletes<sup>8</sup>**



**Reduces fatigue at high altitudes<sup>7</sup>**



**Promotes cardiac output at high altitudes<sup>9,10</sup>**



**Supports the body's capacity for efficient delivery of oxygen at high altitudes<sup>7,10</sup>**

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## Formats

Kaneka Ubiquinol® is available as a pure crystalline powder for use in the following product applications:

- Softgels
- Gummies
- Cap-within-cap
- Liposomal formulations
- Liquid capsules
- Other light- and oxygen-controlled environments

Kaneka Ubiquinol® is also available in an air-stable form as Kaneka Q30™, a 30% Ubiquinol powder. Additional applications include:

- Stick packs
- Sachets
- Soft chews



## Safety

Kaneka Ubiquinol® has a well-established safety profile as demonstrated by extensive clinical trial data.

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## Absorption and Bioactivity

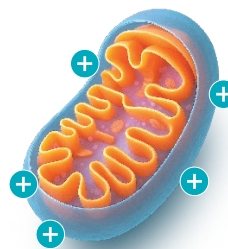
**2x** Kaneka Ubiquinol® has been shown to be **2x better absorbed than conventional CoQ10**.<sup>11</sup>

**8x** Research demonstrates that 200 mg of Kaneka Ubiquinol® **increases ubiquinol levels by approximately 8x** compared to baseline in healthy adults when taken daily for at least 30 days.<sup>12</sup>

Unlike conventional CoQ10 supplements, **Kaneka Ubiquinol® requires no conversion** in the body to perform its antioxidant functions.<sup>7,13</sup>

## Cellular Energy Production

Ubiquinol is the antioxidant form of CoQ10 that **protects the integrity of the mitochondria** and is directly involved in cellular energy production.



## Antioxidant Properties

As the most abundant lipid-soluble antioxidant synthesized in the body, ubiquinol is localized in the mitochondrial membrane, where most free radicals are formed. This makes it the **ideal neutralizer to combat oxidative stress**.

## The Kaneka Ubiquinol® Difference

**Made in the USA**

**Fermented from non-GMO yeast**

**Subject of 100+ clinical studies**

**Kosher certified and allergen free**

**Self-affirmed GRAS**

**All-trans form, bioidentical to the body's natural ubiquinol**

**Compliant with USP monograph**

**Supporting 200+ brands**

## References

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