

Unlocking improved bioavailability for CoQ10 benefits

Clinical research reveals a Kaneka Ubiquinol® supplement delivers better bioavailability than Conventional CoQ10 supplements — but quality and purity standards make a difference.



CoQ10 is one of the most well-known and popular supplements available. It has a vast body of research for its benefits in supporting heart function, enhancing preconception health, and its key role in supporting cellular energy which contributes to healthy aging.

As science tells us more about the importance of this fat-soluble nutrient in the body, we now understand that the body's natural production of CoQ10 decreases with age. At the same time, oxidative stress rises with age and can impact mitochondrial and cellular function.

This understanding has given CoQ10 a rising status among adults across all ages as a foundational supplement for healthy lifespan.

In fact, CoQ10 now commands the second largest market share of any specific ingredient in the nearly \$1.5 billion healthy aging supplement category, with sales of \$145.5 million in the U.S.,

according to data from the [Nutrition Business Journal 2026 Healthy Aging Report](#).

Few supplement ingredients can claim to address as many foundational health benefits as CoQ10. Because it is difficult to get enough CoQ10 through diet, supplementation is gaining popularity for adults across all life stages. However, optimal bioavailability for this molecule can be an issue. One reason for this is that many formulas contain the oxidized form of CoQ10, ubiquinone, rather than its reduced or active form, ubiquinol. While both forms are used in the body, ubiquinone must be converted to ubiquinol to perform its antioxidant functions, whereas ubiquinol does not require this conversion.^{1,2} Ubiquinol is critical for production of adenosine triphosphate (ATP), which regulates the transfer of energy from cell to cell and supports mitochondrial health.³

Conversion challenge

A growing body of evidence showcases ubiquinol as the more bioavailable form. When ingested, ubiquinol is absorbed through the intestinal wall without conversion to its oxidized form CoQ10 (ubiquinone).⁴ In fact, researchers have found that 95% of the CoQ10 in the blood of a healthy individual is in the form of ubiquinol.⁵ Ubiquinol is also considered a better choice for older adults as the ability to convert CoQ10 diminishes with age.



A key study in 2014 made a direct comparison between the CoQ10 levels in healthy subjects supplemented with ubiquinol and ubiquinone and found that ubiquinol is two times better absorbed than conventional oxidized CoQ10.⁶

While it is increasingly clear that ubiquinol offers better bioavailability and additional benefits compared to conventional CoQ10, it's also important to note that not all ubiquinol products are manufactured using the same standards for quality, purity and product integrity, so it is important for brands to work with an experienced supplier.

For 50 years Kaneka Nutrients has been the leader in ubiquinone and ubiquinol research. The company's Kaneka Ubiquinol® is not only the most well-studied ubiquinol ingredient with more than **100 clinical studies**, but this yeast-fermented Ubiquinol, manufactured in the United States, is both patented and the most-widely tested and marketed ubiquinol ingredient available.

Research indicates that Kaneka Ubiquinol® at a dose of 200 mg can increase ubiquinol levels by as much as eight times when compared to baseline in healthy adults.⁷

Although dosage may vary depending on formulation and applications, Kaneka Ubiquinol maintains a well-established clinical safety profile. Risa Schulman, Ph.D., president at Tap-Root and a senior science and regulatory advisory at Kaneka Nutrients, noted that 200 mg of Ubiquinol per day, ideally taken with a meal containing fat, can be taken for 2-3 weeks to "prime the pump." Thereafter, she said, 100 mg can be used daily. For individuals with particular conditions, a healthcare practitioner can advise on dosing.

Bioidentical by design

Beyond its bioavailability advantage, Kaneka Ubiquinol is different from others in the market on many levels. It is bioidentical to the ubiquinol that occurs naturally in the body. This is important because ubiquinol can exist in different isomeric forms, which include a cis-form, a trans-form, and cis+trans mixture, explained Sid Shastri, M.Sc., director of



Ubiquinol: Not just for softgels anymore

Because of ubiquinol's inherent instability, softgels and liquid capsules have been the format of choice for ubiquinol supplements. Those days are over. As the leader in research and science for ubiquinol, Kaneka Nutrients has been developing innovative technologies to bring out maximum benefits of ubiquinol while creating versions that will provide stability to this reactive molecule in a range of applications.

Microencapsulated powder:

Ubiquinol converts to ubiquinone when exposed to oxygen, so it must be protected from oxidation in certain applications like stick packs, nutrition bars and protein shakes. Kaneka has developed a proprietary stabilization process to create Kaneka Q30®, a 30% ubiquinol powder that offers the benefits of Kaneka Ubiquinol in an air-stable format. The powder can also be used in liquid formats with a viscosity enhancer like xanthan gum to maintain Q30's suspension as a dispersion.

**30%
ubiquinol
powder**



Stabilized high-load Ubiquinol gummies



**100
mg dose in a
single gummy**

Gummies traditionally present difficult technical challenges for ubiquinol, primarily based on factors such as high-level oxygen contact, moisture exposure, very high levels of heat processing, as well as ingredient interactions. Addressing these confounding factors required a coordinated effort across Kaneka's formulation, process engineering, and QC/QA departments. Kaneka Ubiquinol gummies are stabilized in a liquid center portion of the gummy and can offer a full 100 mg dose in a single gummy.

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.



research and business for Kaneka Nutrients. “The form endogenously synthesized within our body is only the all-trans-form.” In other words, the form naturally found in human tissues is the all-trans configuration and is associated with mitochondrial electron transport and antioxidant activity.

The cis-isomers are not observed in nature and are considered a non-natural form, he added. “It may arise during certain synthetic manufacturing or processing conditions, but this is not the form involved in normal mitochondrial electron transport and antioxidant functions. Kaneka Ubiquinol is completely free of this synthetic impurity. Only the all-trans isomer delivers the biological benefits associated with this mitochondrial marvel.”

Quality as responsibility

Manufacturing processes are also essential in producing pure, high-quality ubiquinol. Kaneka Nutrients has deep experience in the manufacture of both ubiquinone CoQ10 and ubiquinol.

“We understand that quality is not simply a regulatory requirement — it is a responsibility to the customers, brand partners, healthcare professionals and consumers who rely on our ingredients every day,” said Brian Wilson, director of quality assurance for Kaneka Nutrients.

Ensuring the safety, purity, identity and consistency of ubiquinol is particularly critical because it is a highly specialized and sensitive ingredient, he added. “Consumers expect dietary supplements to deliver the quality and efficacy represented on the label, and achieving that standard requires rigorous oversight, scientific expertise and disciplined manufacturing controls at every stage of production.”

Ultimately, Wilson asserted, “Constant innovation along with rigorous quality and purity standards is essential to ensuring product integrity, supporting consumer confidence and reinforcing the trust that customers place in Kaneka Ubiquinol.”

References

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