

Mito Cell PQQ

Daily Cell Recharge*

A943 60 VEGETARIAN CAPSULES

CLINICAL APPLICATIONS

- Cellular energy support*
- Promotes healthy mitochondrial integrity and biogenesis*
- Supports antioxidative status*
- May help support brain nutrition, memory, and focus

Mito Cell PQQ is precision-formulated to target pathways related to cellular health, energy, and mitochondrial function.* This formula contains highly-researched building blocks, vitamins, minerals, botanicals, and micronutrients to comprehensively support mitochondrial health, antioxidative status, healthy aging, and cellular energy.*

Mito Cell PQQ is ideal for:*

- Individuals who may benefit from targeted support for cellular energy and mitochondrial integrity
- Those with certain genetic polymorphisms related to mitochondrial health
- Those who may require support for age-related changes to cognition
- Certain populations at risk for mineral deficiencies or insufficiencies; these include older adults and individuals who struggle with nutritional absorption

DISCUSSION

Mitochondria are vulnerable to oxidative stress and can deteriorate during the aging process.¹ In addition, certain genetic polymorphisms can lead to challenges with mitochondrial function. This can lead to downstream effects that include anywhere from metabolic disease, muscular myopathies, and cardiovascular dysfunctions to fatigue and problems with cognition.^{2,3} As we age, our bodies often require more support for antioxidative status and to ensure that our cells are functioning at their optimal levels. This can be achieved through targeting senescent cells, cofactors, and pathways related to inflammation and cellular energy.* Mito Cell PQQ provides the micronutrients to help optimize our mitochondria and energy.*

INGREDIENT HIGHLIGHTS

Vitamin C (ascorbic acid) and Zinc (as zinc oxide)

Vitamin C and zinc both exhibit free radical scavenging activity, supporting many aspects of brain health and antioxidative status.*



Vegetarian



Gluten-Free



Non-GMO

Antioxidant compounds have been shown in research to help protect against age-related neuronal changes.⁴ Both zinc and vitamin C are also critical cofactors for many biochemical processes involving cellular energy, mitochondrial integrity, and cognitive health.*

The brain contains relatively high amounts of vitamin C; vitamin C is required for the biosynthesis of certain neurotransmitters, L-carnitine, and other proteins critical for cognition and brain health.⁵ Zinc is an essential mineral for human functioning and is critical for protein synthesis, cellular replication and signaling, immune function, and DNA integrity.⁶ Deficiencies and insufficiencies in zinc have been associated with neuronal atrophy, impaired memory, behavioral changes, and decreases in cognitive function.⁷ Supplementation with zinc has been shown to help improve many changes associated with zinc deficiency.⁷

Pyrroloquinoline Quinone (PQQ)

PQQ is a vitamin-like molecule with particular affinity for supporting mitochondrial function and brain health.* It has been shown to help support antioxidative status, help increase cerebral blood flow, and help promote mitochondrial biogenesis.¹ PQQ helps support many biochemical pathways related to cellular energy and acts as a cofactor for enzymes associated with metabolism and energy production.¹

Coenzyme Q10 (ubiquinone)

CoQ10 supports cellular membrane integrity, antioxidative status, and the mitochondrial electron transport chain. It helps support ATP production and vascular health.⁸ Evidence suggests that PQQ and CoQ10 may exhibit complementary actions in the human body, particularly in the support of healthy mitochondrial gene expression.⁹

Acetyl L-carnitine (ALC)

L-carnitine is an amino acid derivative that supports cellular energy, mitochondrial functioning, muscle integrity, and antioxidative status.* Acetyl L-carnitine (ALC) has been shown to pass through the blood-brain barrier and help support normal inflammatory status.¹⁰ ALC may also help improve neurological function and ATP production.¹⁰

Senolytic and antioxidative support: Resveratrol and Quercetin

Resveratrol and quercetin are both master supporters of antioxidative status and the body's response to senescent cells. Resveratrol has been shown to target the transcription factor Nrf2, help modulate NF-kB, and help support the scavenging of reactive oxygen species (ROS) in mitochondria.¹¹ Clinical studies have shown that resveratrol may support cognition, cardiometabolic health, and vascular blood flow in the brain.¹² Quercetin helps support the activity of SIRT1 and may also help modulate the expression of amyloid-beta and tau.¹³ In clinical studies, quercetin has also been shown to help restore mitochondrial homeostasis in the presence of age-related neurological changes.¹³

L-ornithine

Ornithine is an amino acid that is an important precursor to critical proteins for brain health, including collagen and glutamate, a building block for GABA.^{14–16} In animal studies, ornithine administration has helped support brain activity, memory, and a balanced mood.¹⁷

Nicotinamide adenine dinucleotide (NADH)

NADH is critical for hundreds of biochemical processes in the body including cellular energy and mitochondrial health. NADH helps support respiratory chain function and helps restore energy levels.

RECOMMENDED USE:

Adults take two capsules daily in the AM with food. Children take one capsule in the AM with food or as directed by a healthcare practitioner.

NOTE: Easing into a full dose of this formula is recommended. Begin at one capsule daily for two-to-four weeks, then move up to a full dose.

CAUTION:

Keep out of reach of children. Consult with a healthcare practitioner before use if you are pregnant or lactating. Consult with your health-care practitioner about your specific circumstances and any questions you may have regarding this product.

REFERENCES

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*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any diseases.

SUPPLEMENT FACTS

Serving Size: 2 Capsules
Servings Per Container: 30

	Amount Per Serving	%DV
Vitamin C (Ascorbic Acid)	200 mg	222%
Zinc (as Zinc Oxide)	35 mg	318%
Acetyl L-Carnitine HCl	200 mg	††
L-Ornithine HCl	200 mg	††
Quercetin Dihydrate (from <i>Sophora japonica</i> Bud Extract)	100 mg	††
Resveratrol (from <i>Polygonum cuspidatum</i> Root Extract)	100 mg	††
Coenzyme Q-10 (Ubiquinone)	75 mg	††
Nicotinamide Adenine Dinucleotide (NADH)	20 mg	††
Pyrroloquinoline Quinone (PQQ) Disodium Salt	20 mg	††
†† Daily Value (DV) not established.		

Other Ingredients: Hypromellose (Capsule), Microcrystalline Cellulose, Silicon Dioxide, Ascorbyl Palmitate, Dicalcium Phosphate.

NEUROBIOLOGIX®