



# PQQ-10<sup>®</sup>

## Coenzyme Q10 and Pyrroloquinoline Quinone

- BioPQQ<sup>®</sup> is manufactured in Japan using a patented natural fermentation process to enhance absorption – derived from 100% all-natural sourced materials
- PQQ has synergistic activity when combined with CoQ10, providing optimal mitochondrial function and energy production
- Addresses mitochondrial dysfunction and oxidative stress, key determinants of oocyte and sperm quality
- Formulated with vitamin E derived from non-GMO sunflower lecithin

**Code:** 9271 **NPN:** 80052757

**Size:** 60 Softgels

**Actual Size:** 23 mm x 8 mm



### PRODUCT SUMMARY

PQQ and CoQ10 are synergistic nutrients which modulate cellular signalling pathways, neutralize reactive oxygen species, and support optimal mitochondrial function. Mitochondrial dysfunction and oxidative stress are involved in an ever-increasing range of conditions and are thought to play important roles in egg and sperm quality, as well as cellular aging. CoQ10 is well established as a mitochondrial enhancer, with proven benefit in the treatment and prevention of numerous cardiovascular and neurological conditions. CoQ10 also affects oocyte mitochondrial function, sperm quality, and fertility.<sup>1,2</sup> CoQ10 increases the efficiency of mitochondrial ATP production and cellular respiration.<sup>3</sup>

PQQ is a novel biofactor, known to influence multiple cellular pathways, including the production of nerve growth factor (NGF). PQQ has diverse benefit for mitochondrial function, and has been shown to attenuate mitochondrial oxidative stress as well as to stimulate mitochondrial biogenesis.<sup>4</sup> It also has neuroprotective properties including protection against glutamate-induced toxicity, a pathway common in many neurodegenerative diseases. BioPQQ is considered a novel cofactor with antioxidant and B vitamin-like activity. It is naturally fermented to enhance absorption.<sup>5</sup>

Taken together, PQQ and CoQ10 have shown clinical benefits for improving cognitive performance such as attention and information processing, cardiovascular health, and providing superior mitochondrial support.<sup>6,7</sup>



# PQQ-10®

## COENZYME Q10 AND PYRROLOQUINOLINE QUINONE

**Serving Size:** 1 Softgel  
**Servings per Container:** 60

### Each Softgel Contains:

Coenzyme Q10 (Microorganism) ..... 200 mg  
PQQ (BioPQQ® Pyrroloquinoline Quinone Disodium Salt) ..... 20 mg  
(Providing Pyrroloquinoline Quinone 17.65 mg)  
Vitamin E (Natural *d*-alpha Tocopherol) (SUN-E 900) (Non-GMO Sunflower Oil) ..... 5 IU (3.35 mg AT)

**Non-medicinal Ingredients:** Organic flaxseed oil, softgel (gelatin, glycerin, purified water, carob), yellow beeswax, non-GMO sunflower lecithin.

**Recommended Adult Dose:** 1 softgel daily with food or as directed by a health care practitioner.

**Recommended Use:** Antioxidants for the maintenance of good health. Helps support cognitive function.

**Caution:** Consult a health care practitioner prior to use if you are pregnant, breastfeeding, or taking blood pressure medication or blood thinners. Keep out of reach of children.

**Contains no artificial colours, preservatives, or sweeteners; no dairy, starch, sugar, wheat, gluten, yeast, soy, corn, egg, fish, shellfish, salt, tree nuts, or GMOs.** Sealed for your protection. Do not use if seal is broken. For freshness, store in a cool, dry place.

### References

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2. Safarinejad, M.R., Safarinejad, S., Shafiei, N., et al. (2012). Effects of the reduced form of coenzyme Q10 (ubiquinol) on semen parameters in men with idiopathic infertility: a double-blind, placebo controlled, randomized study. *J Urol*, 188(2), 526-31.
3. Takeda, R., Sawabe, A., Nakano, R., et al. (2011). Effect of various food additives and soy constituents on high CoQ10 absorption. *Japanese Journal Medicine Pharmaceutical Science*, 64(4), 614-20.
4. Chowanadisai, W., Bauerly, K.A., Tchapanian, E., et al. (2010). Pyrroloquinoline quinone stimulates mitochondrial biogenesis through cAMP response element-binding protein phosphorylation and increased PGC-1alpha expression. *J Biol Chem*, 285(1), 142-52.
5. Rucker, R., Chowanadisai, W., Nakano, M. (2009). Potential physiological importance of pyrroloquinoline quinone. *Altern Med Rev*, 14(3), 268-77.
6. Nakano, M., Ubukata, K., Yamamoto, T., et al. (2009). Effect of pyrroloquinoline quinone (PQQ) on mental status of middle-aged and elderly persons. *Food Style*, 13(7), 50-3.
7. Littarru, G.P., Tian, L., Belardinelli, R., et al. (2011). Coenzyme Q(10), endothelial function and cardiovascular disease. *Biofactors*, 37(5), 366-73.



· GUARANTEED ·

Bioclinic Naturals® products are guaranteed to meet or exceed Good Manufacturing Practices (GMP) of the U.S. Food and Drug Administration (FDA), Health Canada, and the Therapeutic Goods Administration (TGA) of Australia.



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