

## Mitochondrial Energy Optimizer with BioPQQ®

*Maintain youthful cellular energy*

**Item #01868 • 120 capsules**

Mitochondrial Energy Optimizer with BioPQQ® is designed to counteract age-related structural and functional changes by providing the following unique ingredients:

- **CARNOSINE:** As humans age, proteins in their bodies become irreversibly damaged by glycation reactions. Glycation can lead to alterations of normal cell function. Carnosine is not only a powerful anti-glycating agent, but it also protects neurons against reactive and cytotoxic protein carbonyl species associated with normal aging.<sup>1-5</sup>
- **PQQ:** This breakthrough micronutrient has been shown to trigger mitochondrial biogenesis — the growth of new mitochondria in aging cells!<sup>6</sup> PQQ also activates genes involved in protecting the delicate structures within the mitochondria.<sup>7-10</sup>
- **LUTEOLIN:** Systemic inflammation is involved in most consequences of aging. Culprits behind inflammatory reactions are pro-inflammatory cytokines, such as interleukin-6 and tumor necrosis factor-alpha. Luteolin is a flavonoid that has been shown to help suppress these inflammatory cytokines.<sup>11-15</sup>
- **BENFOTIAMINE:** Effectively modulates multiple destructive biochemical pathways that are induced by higher than desirable blood glucose levels. Benfotiamine can activate glucose metabolism and promote already healthy blood glucose levels already within normal range. In addition, benfotiamine exhibits direct antioxidative capacity and supports DNA function.<sup>16</sup>
- **PYRIDOXAL 5'-PHOSPHATE:** Aging results in the formation of advanced glycation end products throughout the body. Pyridoxal 5'-phosphate is the active form of vitamin B6 that has been shown to protect against both lipid and protein glycation reactions.<sup>17-20</sup>
- **R-LIPOIC ACID:** Destructive free-radical activity in the mitochondria plays a major role in the loss of cellular vitality. A microencapsulated Bio-Enhanced® R-lipoic acid facilitates youthful mitochondrial energy output while guarding against free radicals.
- **TAURINE:** This free amino acid supports whole-body health and boosts new brain cell formation in the area of the brain connected to learning and memory.<sup>21</sup>

### References:

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### Four capsules contain:

Vitamin B6 (as pyridoxal 5'-phosphate) .....	100 mg
Sodium .....	18 mg
Carnosine .....	1000 mg
L-Taurine .....	800 mg
Benfotiamine .....	150 mg
R-Lipoic Acid (as microencapsulated Bio-Enhanced® stabilized Na-RALA sodium R-lipoate) .....	150 mg
BioPQQ® Pyrroloquinoline quinone disodium salt .....	10 mg
Luteolin [from orange extract (fruit)] .....	8 mg
Other ingredients: vegetable cellulose (capsule), microcrystalline cellulose, candelilla wax, beeswax, stearic acid, silica, corn starch, acacia gum, calcium silicate.	

**Non-GMO**

### Dosage and use

- Take two capsules twice daily, preferably early in the day or all at once upon waking, or as recommended by a healthcare practitioner. This product can be taken with or without food.

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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.**