# Ultra B-Complex w/PQQ

### Enhanced B-complex support for mitochondrial and nerve health<sup>†</sup>

#### **INDICATIONS**

- · Ages 18 and up
- Energy and longevity support<sup>†</sup>
- Mitochondrial and nerve health support<sup>†</sup>

#### **BENEFITS**

- Provides methylation, nerve and cellular energy support<sup>†</sup>
- Promotes cellular energy production by supporting mitochondrial biogenesis<sup>†</sup>
- Enhanced support for nerve health<sup>‡</sup>
- With PQQ, alpha lipoic acid and luteolin for enhanced antioxidant and cellular support<sup>†</sup>

#### **FEATURES**

- Combines B-complex vitamins with PQQ
- Contains Metafolin® (5-MTHF), the universally metabolized and biologically active form of folate
- Made with high-quality vegetarian ingredients backed by verifiable science

#### **VERIFIABLE SCIENCE**

Ultra B-Complex w/PQQ combines essential B vitamins with PQQ to support mitochondrial bioenergetics and function. The B-complex vitamins, which are essential to basal mitochondrial function. serve as metabolic coenzymes and/or methyl donors. Thiamin and niacin support healthy neuron cell longevity, neuronal membrane function and impulse conduction. L-5-MTHF, methylcobalamin and vitamin B<sub>6</sub> support neuronal health as methylation cofactors in myelin and neurotransmitter biosynthesis. 1 Adenosylcobalamin is active form of vitamin  $B_{12}$  in mitochondria, where it maintains cellular energy (ATP) production by acting as a cofactor or MCM (methylmalonyl CoA mutase), whose activity declines with age in animal models.<sup>2</sup> Animal studies suggest that adenosylcobalamin enhances mitochondrial bioenergetics, maintains type IIA fast-twitch muscle fiber size in aging animals and maintains neuromuscular junction integrity.<sup>3</sup> Preliminary data show that adenosylcobalamin also supports healthy myelination of peripheral neurons innervating muscle.3

PQQ provides B vitamin-like activity with unique antioxidant properties. PQQ supports mitochondrial,

neuronal and cellular function, at least in part by activation of Nrf2 and antioxidant gene expression. PQQ may also help to maintain cytokine balance. Studies indicate significant support for cognitive function, including increased cerebral blood flow and oxygen metabolism. Preliminary research suggests that PQQ promotes mitochondrial biogenesis by targeting SIRT1 and PGC-1 $\alpha$ . Alpha lipoic acid provides additional support for mitochondrial energy utilization. Alpha lipoic acid and luteolin are both antioxidants that support neuronal health. Research suggests luteolin also helps maintain healthy macrophage activity and gene expression in the nervous system.  $^{6^{\circ}}$ 

#### SUGGESTED USE

As a dietary supplement, take 1 capsule, 1-2 times daily, with meals.

#### **STORAGE**

Store in a cool, dry place.

#### **WARNING**

If you are pregnant or lactating, have any health condition or are taking any medication, consult your health professional before use.

#### **SOURCE**

- Vitamin B₁ (thiamine HCl), niacinamide, niacin, vitamin B₅ (calcium pantothenate), vitamin B6 (pyridoxal HCl), folic acid (Metafolin®, L-5-MTHF), biotin and alpha lipoic acid are synthetic
- Vitamin B<sub>2</sub> (riboflavin) and vitamin B<sub>12</sub> (methylcobalamin) are derived from corn dextrose fermentation
- Luteolin is derived from Chrysanthemum indicum L leaf
- BioPQQ® pyrroloquinoline quinone disodium salt is manufactured in Japan using a patented natural fermentation process. It contains 2.7 mg sodium per capsule
- Ascorbyl palmitate is produced from corn dextrose fermentation



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#### **NOTES**

Size 00 caps

Bottle count 60

Order code BPQ26

Bottle size 190 cc

#### **REFERENCES**

- 1. Jacobs AM, et al. Rev Neurol Dis. 2011;8(1-2):39-47.
- 2. Pannérec A, et al. J Cachexia Sarcopenia Muscle. 2018 Feb;9(1):41-52.
- 3. Dror DK, Allen LH. Nutrition Reviews. 2008;66(5):250-255.
- 4. Harris CB, et al. Nutr Biochem. 2013 Dec;24(12):2076-84.
- 5. Jones W, et al. Free Radic Biol Med. 2002 Jul 1;33(1):83-93
- 6. Asadi S, et al. J Neuroinflammation. 2012 May 4;9:85.

#### SUPPLEMENT FACTS

1 capsule, 1-2 times daily, with meals.

Each (size 00) vegetarian capsule contains:

Thiamin (as thiamin HCI)	125 mg
Riboflavin (vitamin B <sub>2</sub> and 60%	12.7 mg
riboflavin 5' phosphate (activated B <sub>2</sub> ))	
Niacin (as niacinamide and 8%	108 mg
inositol hexaniacinate (no-flush niacin))	
Vitamin B₀ (as pyridoxine HCl and	96.7 mg
7% pyridoxal 5' phosphate (activated B <sub>6</sub> ))	
Folate (as Metafolin®, L-5-MTHF) 667 mcg DFE (40	00 mcg L-5-MTHF)
Vitamin B <sub>12</sub> (as methylcobalamin and	1,000 mcg
50% adenosylcobalamin)	
Biotin	400 mcg
Panthothenic acid (as calcium pantothenate) (B <sub>5</sub> )	100 mg
Alpha lipoic acid (thioctic acid)	100 mg
Luteolin	20 mg
BioPQQ® pyrroloquinoline quinone disodium salt	10 mg
Other ingredients: vegetarian cansule (cellulose water)	ascorbyl palmitate

Other ingredients: vegetarian capsule (cellulose, water), ascorbyl palmitate

Metafolin\* is a registered trademark of Merck KGaA, Darmstadt, Germany.

BioPQQ\* is a registered trademark of MGC (Japan).



Ultra B-Complex w/PQQ	Quantity	Order Code
	60	BPO26

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