MitochondroLean Energevity Packets



Clarksville, TN 37043

www.creatinghealth.com 556 Fire Station Rd, Suite

AitochondroLean Energevity Packet

Manufactured For Creating Health

FORMULATED BY DAVID HAASE, MD

Clinical Applications

- · Promotes Efficient Use of Insulin and Glucose in the Body*
- · Enhances Conversion of Glucose into Usable Energy*
- Promotes Healthy Aging*
- Increases Exercise Performance*
- Promotes Nitric Oxide (NO) Production*
- Supports Cardiovascular and Endothelial Function*
- Improves Antioxidant Status and Resistance to Oxidative Stress*

The Creating Health™'s MitochondroLean Energevity Packets is formulated to support and promote mitochondrial biogenesis and function. MitochondroLean Energevity Packets supplies three active, orally bioavailable formulations-MitoPRO ER Support, ReSIRTen Plus and Alphamax ER -which function synergistically to support the critical role that mitochondria play in metabolism. The patented functional components found in the MitochondroLean Energevity Packets are safe, well-tolerated, and have been uniquely prepared to enhance both absorption and overall bioavailability in order to maximize patient benefit and satisfaction.*

All Creating Health™ Formulas Meet or Exceed cGMP Quality Standards

Discussion

Mitochondria are the organelles inside cells that produce energy. Representing approximately 10% of total body weight, mitochondria have a number of roles in the body. Primarily, they are cellular "fuel stations" responsible for supplying greater than 95% of the body's energy needs.[1] Mitochondrial biogenesis is the process by which new mitochondria are produced, and it is believed to delay the effects of aging and the onset of age-associated diseases. [2-5] This complex process involves more than 1,000 genes[2] and is responsible for producing 20% of total cellular protein.[1] Aerobic exercise and caloric restriction are the two most compelling approaches to stimulate mitochondrial biogenesis, [2,3] most notably by activating the "master regulator" of mitochondrial biogenesis and function known as PGC-1a, a transcriptional coactivator. Dysregulation of PGC-1a has been implicated in aging and the pathogenesis of numerous age-associated complications such as poor glucose control, increased fat mass with accompanying decrease in muscle mass, and various neurological conditions.*

PGC-1α-deficient animals display defects in energy metabolism, glucose disposal, and insulin action. These deficient animals also display reduced resistance to oxidative stress, increased fat mass, decreased muscle mass, impaired exercise performance, and other issues suggestive of an impaired ability to adapt to metabolic and physiological stress. [6] Conversely, PGC-1α activation contributes to an increase in metabolic fitness in the form of an increased metabolic rate, improved glucose disposal and insulin function, enhanced fatty acid oxidation, increased resistance to oxidative stress, decreased fat mass, and increased muscle mass and exercise performance.*

The nutrients in the MitochondroLean Energevity Packets have been clinically tested for their oral bioavailability and also for their safety and efficacy in activating PGC-1a and upstream cellular signaling cascades, These actions mimic the protective effects of exercise and caloric restriction on mitochondrial biogenesis, metabolic fitness, and aging. The key signaling cascades affected include those involving nitric oxide (MitoPRO ER Support), SIRT1 (ReSIRTen Plus), and AMPK (Alphamax ER). Ultimately, it is the stimulation of these cascades that leads to activation of PGC-1α and subsequent upregulation of mitochondrial biogenesis and promotion of overall metabolic fitness. For optimal benefit, combine this product with a healthy diet and exercise regimen.*

MitoPRO ER Support is a patented, extended-release formulation containing arginine alpha-ketoglutarate and ACTINOS2®, a proprietary whey peptide fraction. This synergistic combination serves as an effective nitric oxide (NO) precursor. As a vasodilator, NO exerts a protective effect on blood vessel endothelium.[7] Within the cell, NO plays an important role in intracellular communication, acting as a trigger for mitochondrial biogenesis.*[8]

ReSIRTen Plus provides a distinctive bioflavonoid complex with resveratrol, quercetin, and pterostilbene (bio-optimized methylated resveratrol).[9] These three antioxidants work together synergistically and are being extensively studied in the areas of cardiovascular health and aging.*

Alphamax ER is a multifunctional antioxidant that has the ability to neutralize free radicals in both the aqueous-based and lipid-based environments of cells. In addition, Alphamax ER's patented, controlled-release formulation provides extended protection[10] by promoting synthesis of glutathione and "recharging" other important antioxidants such as vitamin C, vitamin E, and coenzyme Q10.*

An independent study of the MitochondroLean Energevity Packets was performed. A report of the study, written by Dr. Joseph Evans and entitled "A Three-Month, Open-Label Pilot Clinical Study Evaluating the Efficacy of the MitochondroLean Energevity Packets on Aerobic Conditioning and Body Composition," is available through your Creating Health™ Functional Medicine Consultant.*

ReSIRTen Plus



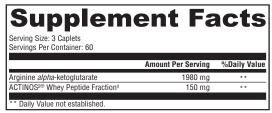
Other Ingredients: HPMC (capsule), microcrystalline cellulose, stearic acid, magnesium stearate, silica, and medium-chain triglyceride oil.

Ter Pure is a trademark of ChromaDex, Inc.

Does Not Contain

Wheat, gluten, yeast, soy, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.

MitoPRO ER Support



Other Ingredients: Cellulose and cellulose derivatives, stearic acid

 $magnesium \ stearate, \ silica, \ and \ glycerin.$

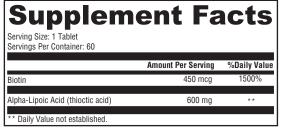
PROTECTED BY U.S. PATENTS: 6,905,707 and 7,579,020



Does Not Contain

Wheat, gluten, corn, yeast, soy, fish, shellfish, peanuts, tree nuts, egg, artificial colors, artificial sweeteners, or preservatives.

Alphamax ER

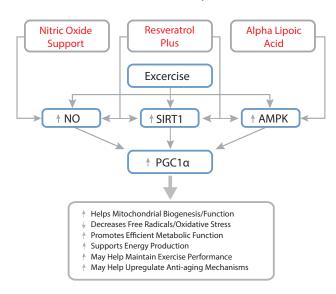


Other Ingredients: Cellulose and cellulose derivatives, silica, magnesium stearate stearic acid, glycerin, and dicalcium phosphate.

PROTECTED BY U.S. PATENTS: 6,191,162(B1); 6,197,340(B1); 6,572,888(B2); 7,118,762(B2)

Does Not Contain

Wheat, gluten, corn, yeast, soy, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.



§ Based on emerging experimental research.

Directions

Take one to two packets per day, or as directed by your healthcare practitioner. Each packet supplies three MitoPRO ER Support, one ReSIRTen Plus, and one Alphamax ER. Take one packet with 8 oz. water, 30 minutes before breakfast and 30 minutes before lunch.

Individuals with a medical condition (including diabetes or cold sores), that are taking prescription drugs, that are pregnant or lactating, or are under the age of 18 should consult their healthcare practitioner prior to use.

References

- 1. Goffart S, Wiesner RJ. Regulation and co-ordination of nuclear gene expression during mitochondrial biogenesis. *Exp Physiol.* 2003 Jan;88(1):33-40. Review. IPMID: 125258531
- 2. López-Lluch G, Irusta PM, Navas P, et al. Mitochondrial biogenesis and healthy aging. Exp Gerontol. 2008 Sep;43(9):813-9. Review. [PMID: 18662766]
- 3. Lanza IR, Short DK, Short KR, et al. Endurance exercise as a countermeasure for aging. Diabetes. 2008 Nov;57(11):2933-42. [PMID: 18716044]
- 4. Johnston AP, De Lisio M, Parise G. Resistance training, sarcopenia, and the mitochondrial theory of aging. *Appl Physiol Nutr Metab.* 2008 Feb;33(1):191-9. Review. [PMID: 18347672]
- 5. Wallace DC. A mitochondrial paradigm of metabolic and degenerative diseases, aging, and cancer: a dawn for evolutionary medicine. *Annu Rev Genet.* 2005;39:359-407. [PMID: 16285865]
- 6. Leone TC, Lehman JJ, Finck BN, et al. PGC-1alpha deficiency causes multi-system energy metabolic derangements: muscle dysfunction, abnormal weight control and hepatic steatosis. *PLoS Biol.* 2005 Apr;3(4):e101. [PMID: 15760270]
- 7. Bian K, Doursout MF, Murad F. Vascular system: role of nitric oxide in cardiovascular diseases. *J Clin Hypertens* (Greenwich). 2008 Apr;10(4):304-10. [PMID: 18401228]
- 8. Nisoli E, Carruba MO. Nitric oxide and mitochondrial biogenesis. J Cell Sci. 2006 Jul 15;119(Pt 14):2855-62. [PMID: 16825426]
- 9. Wen X, Walle T. Methylated flavonoids have greatly improved intestinal absorption and metabolic stability. *Drug Metab Dispos.* 2006 Oct;34(10):1786-92. [PMID: 16868069]
- 10. Teichert J, Kern J, Tritschler HJ, et al. Investigations on the pharmacokinetics of alpha-lipoic acid in healthy volunteers. Int J Clin Pharmacol Ther. 1998 Dec;36(12):625-8. [PMID: 9876998]

*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.

Manufactured For Creating Health 556 Fire Station Rd, Suite B Clarksville, TN 37043 www.creatinghealth.com