ATP Cofactors®

High Potency Vitamins B-2/B-3 Combination

In order to convert food to ATP and use ATP as a source of energy, several micronutrients are required: vitamins, minerals, and trace elements. There is a close interaction and synergism between these micronutrients. **ATP Cofactors®** provides two of these nutrients that are of particular importance, vitamin B-2 (riboflavin) and vitamin B-3 (niacin).

ATP Cofactors® should be used as part of a complete nutritional program emphasizing magnesium instead of calcium for best results.*



#01201 90 Tablets

Key Features

- Contains 100 mg of riboflavin and 500 mg of niacin (as inositol hexanicotinate) per tablet
- Niacin and riboflavin are the precursors of the cofactors NADH and FADH2, the major electron carriers required for ATP synthesis*
- Intended to be used as part of a complete nutritional program
- Original Dr. Abraham formulation





A human at rest consumes one half of his/her weight of ATP daily. The synthesis of ATP from ADP plus high energy phosphate group is called oxidative phosphorylation and is dependant on the electron flow through the electron transport chain via electron carriers. NADH and FADH2 are the major electron carriers in the synthesis of ATP. The B vitamins, niacin and riboflavin, are the precursors of the cofactors NADH and FADH2. These cofactors play an important role also in the oxidation and organification of iodide by generating hydrogen peroxide via the NADPH oxidase system.

In some conditions, the body cannot efficiently synthesize NADH and FADH2 from niacin and riboflavin because of defect/damage to the enzymes involved in this conversion.* More riboflavin and niacin are needed to override the inefficient enzymes in order to obtain adequate levels of cofactors.* A small pilot study suggested that supplementation of vitamins B2 and B3 in combination with a high dose of elemental iodine may help reduce point tenderness, improving pressure tolerance.*

We recommend the following multivitamin-mineral combinations:

- For pre-menopausal women: Optivite® P.M.T.*
- For post menopausal women: Gynovite® Plus
- For men: Androvite® FOR MEN

Extra magnesium may be ingested using the magnesium supplement MAG-200 $^{\text{TM}}$.

Supplement Facts Serving Size 1 Tablet 90 Amount Per Serving % Daily Value* Riboflavin 100 mg 7692%

Niacin (as Inositol Hexinicatinate) 500 mg NE 3125%

* Percent Daily Values are based on a 2,000 calorie diet

Other ingredients: Micosolle® (silica-based excipient), microcrystalline cellulose, stearic acid, silicon dioxide, croscarmellose sodium, magnesium stearate, pharmaceutical glaze.

Suggested Use: One to three tablets daily, or as recommended by a healthcare provider. When used in conjunction with lodoral® 50 mg tablets, the recommended amount is one tablet of ATP Cofactors® for each 50 mg tablet of lodoral®.

Warning: The urine may turn dark yellow due to the excretion of riboflavin and may stain undergarment in subjects with urinary incontinence. The flushing associated with niacin does not occur because the formula uses a non-flushing form of niacin.



Distributed by: Allergy Research Group®

References:

Abraham, G.E., Flechas, J.D., Journal of Nutritional Medicine, 3:49-59, 1992

Biochemistry, 2nd edition. Stryer and Lubert (ed). Freeman, New York, 1975; 240-246

Guy E. Abraham, J.D. Flechas, The Original Internist, 14: [n2] 77-82, 2007

Figueiredo, Marcia D.L., Cardoso, L.C., Ferreira, A.C.F. et al. J Clin Endocrinol Metab, 86(10):4843-4848, 2001.

Niepomniszcze, H., Targovnik, H.M., Gluzman, B.E., et al. J. Clin. Endocr. & Metab., 65(2):344-348, 1987.

Moreno, J.C., Bikker, H., Kempers, M.J.E., et al. N Engl J Med. Vol 347. No. 2 – 2002. Moreno.

Kusakabe, T. Metabolism, 24(10):1103-1113, 1975.

Goei, G.S., Abraham, G.E. J. Appl. Nut., 37:1, 1983 Chakmakjian, Z.H., Higgins, C.E., Abraham, G.E. J. Appl. Nut., 37:12, 1985

Abraham, G.E., Rumley, R.E. J. Rep. Med., 32:405, 1987 Abraham, G.E., Grewal, H. J. Rep. Med., 35:503, 1990 Abraham, G.E. J. Nut. Med., 2:165-178, 1991 Abraham GE, Flechas JD. The Original Internist. 2008 Mar;15(1):8-15.

Allergy Research Group® | 2300 South Main Street, South Salt Lake, UT 84115 | 800.545.9960 | info@allergyresearchgroup.com | www.allergyresearchgroup.com