

# ActivEssentials™ with OncoPLEX™ & D3

## Daily Dose-Pack Nutrition



Available in 60 packets

## Discussion

The average diet can be lacking in complete nutrition due to modern food-production techniques, poor food choices, and nutrient-depleting preparation methods.<sup>[1-3]</sup> Combine these with the toll of lifestyle stress and oxidizing chemicals—found in foods and the environment—and it becomes essential to ensure comprehensive foundation nutrition for the body. To help achieve this, each cellophane-wrapped packet of ActivEssentials with OncoPLEX & D3 contains the following XYMOGEN formulas and ingredient combinations:\*

**ActivNutrients® without Iron** This high-quality, hypoallergenic multivitamin/mineral blend provided in vegetable capsules not only features activated vitamin cofactors and patented Albion® chelated mineral complexes, but it also includes folate as 5-MTHF as well as methylcobalamin as MecobalActive™. The form of 5-MTHF is Quatrefolic®, which is proven to have greater stability, solubility, and bioavailability compared to calcium salt forms of 5-MTHF.<sup>[4]</sup> MecobalActive is a patented form of methylcobalamin that has very high purity; no harmful solvents are used in its production.<sup>[5]</sup> The balanced nutrient profile in ActivNutrients™ without Iron supports vitamin/mineral synergistic activity; antioxidant protection with vitamins C and E, selenium, and carotenoids; and phase I detoxification.\*

**OmegaPure 600 EC™** Each enteric-coated softgel contains 1 g of fish oil, delivering 360 mg of eicosapentaenoic acid (EPA) and 240 mg of docosahexaenoic acid (DHA). A rigorous, proprietary, temperature-controlled/vacuum technology is used for purification and manufacturing. Stringent verification processes reduce any potential health risks that may otherwise result from the oil's exposure to rancid fats, toxins, bacteria, molds, yeasts, or very high levels of fat-soluble vitamins, such as vitamin A. XYMOGEN is proud to provide this International Fish Oil Standards (IFOS) five-star certified formula, which assures the highest level of purity, stability, and potency in fish oils. In addition to complying with a host of federal and state regulations, our supplier also agrees to adhere to voluntary guidelines for manufacturing and to a code of ethics as members of the Council for Responsible Nutrition. Research suggests that consumption of EPA and

## Clinical Applications

- » Provide Foundation Micronutrition for a Variety of Protocols\*
- » Support Improved Dietary Nutrient Intake\*
- » Provide Long-Lasting Antioxidant Support\*
- » Support Individuals with Higher Vitamin D Requirements\*

*ActivEssentials™ with OncoPLEX™ & D3 is a conveniently dose-packaged combination of three formulas that provide comprehensive nutritional support for health and well-being especially when higher vitamin D intake and long-lasting antioxidant support against free radical damage is desirable.\**

DHA omega-3 fatty acids may support cardiovascular health.<sup>[6]</sup> Studies have also shown that fish oils may support healthy cytokine production, promote optimal joint function<sup>[7]</sup>, and support overall brain and nervous system function.<sup>\*[8]</sup>

**OncoPLEX™ and D3** This combination contains truebroc™ glucoraphanin, a patented phytochemical derived from broccoli extract that is featured in XYMOGEN's OncoPLEX formulas, and bioactive D3. These two nutrients continue to be the focus of much research for their protective roles at both system and cellular levels.\*

OncoPLEX delivers 15 mg of glucoraphanin, the glucosinolate in broccoli that converts to sulforaphane in the body. Extensive research suggests that when glucoraphanin is enzymatically converted to sulforaphane (its active form), it safely and effectively supports the Nrf2 system, antioxidant systems, and vital phase II detoxification enzymes.<sup>[9,10]</sup> This process provides protection from common toxins and xenobiotics. In addition, sulforaphane has been shown to support normal cell-life regulation.<sup>[11-14]</sup> It has also been shown to support the body's response to harmful microbes, a healthy response to aging-associated changes in cytokine production, and eye and cardiovascular health.<sup>\*[15-19]</sup>

D3 is provided as 2000 IU of cholecalciferol, identical to the form in which it is derived in the body from cholesterol and synthesized by sunlight on the skin. Although vitamin D forms are similar biochemically, a recent study reported D3 to be approximately 87% more potent in raising and maintaining serum 25-hydroxyvitamin D (25[OH]D) concentrations and in producing two- to threefold greater storage of vitamin D than did equimolar D2 (ergocalciferol).<sup>[20]</sup> In addition to musculoskeletal benefits, research now suggests that optimal serum levels of vitamin D support normal cell differentiation, cardiovascular health, normal immune function, good balance, healthy mood, normal fetal development, neuronal growth and neurodevelopment, healthy glucose metabolism, periodontal health, and normal intestinal immune responses.<sup>\*[21-23]</sup>

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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.

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Bone Health Support

Cardiovascular Support

Cell-Life Regulation

Cytokine Balance Support

Immune System Support

Multivitamins & Minerals

## ActivEssentials™ with OncoPLEX™ & D3 Supplement Facts

Serving Size: 1 Packet

	2 ActivNutrients® without Iron Capsules		1 OncoPLEX™ & D3 Capsule 600 EC™ Softgel		1 OmegaPure Softgel	
	Amount Per Serving	%DV	Amount Per Serving	%DV	Amount Per Serving	%DV
Calories					10	
Total Fat					1 g	1%†
Vitamin A (86% as natural beta-carotene and 14% as retinyl palmitate)	1965 mcg	218%				
Vitamin C (as sodium ascorbate, potassium ascorbate, zinc ascorbate, and calcium ascorbate)	125 mg	139%				
Vitamin D3 (as cholecalciferol)	2.5 mcg (100 IU)	13%	50 mcg (2000 IU)	250%		
Vitamin E (as d-alpha tocopheryl succinate and mixed tocopherols)	67 mg	447%				
Thiamin (as thiamine mononitrate)	10 mg	833%				
Riboflavin (as riboflavin 5'-phosphate sodium)	10 mg	769%				
Niacin (as niacinamide and niacin)	32 mg	200%				
Vitamin B6 (as pyridoxal 5'-phosphate)	10 mg	588%				
Folate (as Quatrefolic® (6S)-5-methyltetrahydrofolic acid, glucosamine salt)	200 mcg DFE	50%				
Vitamin B12 (as MecobalActive™ methylcobalamin)	250 mcg	10,417%				
Biotin	500 mcg	1667%				
Pantothenic Acid (as d-calcium pantothenate)	100 mg	2000%				
Choline (as choline dihydrogen citrate)	18 mg	3%				
Calcium (as DimaCal® di-calcium malate, d-calcium pantothenate, and calcium ascorbate)	50 mg	4%				
Iodine (as potassium iodide)	50 mcg	33%				
Magnesium (as Albion® di-magnesium malate)	50 mg	12%				
Zinc (as TRAACS® zinc bisglycinate chelate)	6.5 mg	59%				
Selenium (as Albion® selenium glycinate complex)	50 mcg	91%				
Copper (as TRAACS® copper bisglycinate chelate)	0.5 mg	56%				
Manganese (as TRAACS® manganese bisglycinate chelate)	0.25 mg	11%				
Chromium (as TRAACS® chromium nicotinate glycinate chelate)	250 mcg	714%				
Molybdenum (as TRAACS® molybdenum glycinate chelate)	25 mcg	56%				
Potassium (as Albion® potassium glycinate complex and potassium ascorbate)	49.5 mg	1%				
Fish Oil Concentrate					1 g	**
Total Omega-3 Fatty Acids					650 mg	**
EPA (eicosapentaenoic acid)					360 mg	**
DHA (docosahexaenoic acid)					240 mg	**
Inositol	18 mg	**				
Glucoraphanin (from broccoli extract)( <i>Brassica oleracea italica</i> )(seed)(truebroc™)			15 mg	**		
PABA ( <i>para</i> -aminobenzoic acid)	6.5 mg	**				
Vanadium (as TRAACS® vanadium nicotinate glycinate chelate)	375 mcg	**				

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

\*\* Daily Value (DV) not established.

**Other Ingredients for ActivNutrients without Iron:** HPMC (capsule), microcrystalline cellulose, ascorbyl palmitate, silica, and medium-chain triglyceride oil.

**Other Ingredients for OncoPLEX & D3 capsule:** Microcrystalline cellulose, HPMC (capsule), vegetable stearic acid, vegetable magnesium stearate, and silica.

**Other Ingredients for OmegaPure 600 EC:** Softgel (tilapia fish gelatin, vegetable glycerin, and purified water), GRAS enteric coating (purified water, ethylcellulose, sodium alginate, ammonium hydroxide, medium-chain triglyceride oil, oleic acid, and vegetable stearic acid), and mixed natural tocopherols.

**Contains:** Fish (Alaska pollock, Pacific whiting [sources of fish oil], tilapia [source of fish gelatin]) from certified sustainable sources.

**DIRECTIONS:** Consume the contents of one packet daily, or as directed by your healthcare practitioner.

Consult your healthcare practitioner prior to use. Individuals taking medication, especially blood thinners, should discuss potential interactions with their healthcare practitioner. Do not use if tamper seal is damaged.

**DOES NOT CONTAIN:** Wheat, gluten, yeast, soy protein, dairy products, shellfish, peanuts, tree nuts, egg, artificial colors, artificial sweeteners, or artificial preservatives.

**STORAGE:** Keep tightly closed in a cool, dry place out of reach of children.

Produced under US patent 5,725,895; 5,968,505; 5,968,567; 6,177,122; and 6,242,018 licensed from Brassica Protection Products LLC; truebroc is a trademark of Brassica Protection Products LLC.

Albion, DimaCal, TRAACS, and the Albion Medallion design are registered trademarks of Albion Laboratories, Inc. Malates covered by US patent 6,706,904.

Quatrefolic® is a registered trademark of Genesis S.p.A. Produced under US patent 7,947,662.

MecobalActive™ is a trademark of Ferrer Health Tech. The active form of B<sub>12</sub>.

## References

- National Health and Nutrition Examination Survey. Centers for Disease Control and Prevention. <http://www.cdc.gov/nchs/nhanes.htm>. Accessed February 22, 2011.
- What we eat in America. USDA Agricultural Research Service. [http://www.ars.usda.gov/main/site\\_main.htm?modecode=80-40-05-30](http://www.ars.usda.gov/main/site_main.htm?modecode=80-40-05-30). Accessed September 16, 2015.
- Worthington V. Nutritional quality of organic versus conventional fruits, vegetables, and grains. *J Altern Complement Med.* 2001 Apr;7(2):161-73. [PMID: 11327522]
- Quatrefolic. <http://www.quatrefolic.com/4thGeneration.html>. Accessed May 22, 2014.
- Sallares J, Petschen I, Camps X, inventors; Ferrar Internacional, S.A., applicant. Process for the production of methylcobalamin. International publication number [English] WO 2006100059 A1. September 28, 2006.
- FDA announces qualified health claims for omega-3 fatty acids. U.S. Food and Drug Administration Department of Health and Human Services. <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/2004/ucm108351.htm>. Accessed February 27, 2011.
- Proudman SM, Cleland LG, James MJ. Dietary omega-3 fats for treatment of inflammatory joint disease: efficacy and utility. *Rheum Dis Clin North Am.* 2008 May;34(2):469-79. [PMID: 18638687]
- Cole GM, Ma QL, Frautschy SA. Dietary fatty acids and the aging brain. *Nutr Rev.* 2010 Dec;68(suppl 2):S102-11. [PMID:21091943]
- Ping Z, Liu W, Kang Z, et al. Sulforaphane protects brains against hypoxic-ischemic injury through induction of Nrf2-dependent phase 2 enzyme. *Brain Res.* 2010 Jul 9;1343:178-85. [PMID: 20417626]
- Vauzour D, Buonfiglio M, Corona G, et al. Sulforaphane protects cortical neurons against 5-S-cysteinyldopamine-induced toxicity through the activation of ERK1/2, Nrf-2 and the upregulation of detoxification enzymes. *Mol Nutr Food Res.* 2010 Apr;54(4):532-42. [PMID: 20166144]
- Cheung KL, Kong AN. Molecular targets of dietary phenethyl isothiocyanate and sulforaphane for cancer chemoprevention. *AAPS J.* 2010 Mar;12(1):87-97. [PMID: 20013083]
- Shapiro TA, Fahey JW, Wade KL, et al. Chemoprotective glucosinolates and isothiocyanates of broccoli sprouts: metabolism and excretion in humans. *Cancer Epidemiol Biomarkers Prev.* 2001 May;10(5):501-08. [PMID: 11352861]
- Ho E, Clarke JD, Dashwood RH. Dietary sulforaphane, a histone deacetylase inhibitor for cancer prevention. *J Nutr.* 2009 Dec;139(12):2393-96. [PMID: 19812222]
- Chu WF, Wu DM, Liu W, et al. Sulforaphane induces G2-M arrest and apoptosis in high metastasis cell line of salivary gland adenoid cystic carcinoma. *Oral Oncol.* 2009 Nov;45(11):998-1004. [PMID: 19589718]
- Yanaka A, Fahey JW, Fukumoto A, et al. Dietary sulforaphane-rich broccoli sprouts reduce colonization and attenuate gastritis in Helicobacter pylori-infected mice and humans. *Cancer Prev Res (Phila Pa).* 2009 Apr;2(4):353-60. [PMID: 19349290]
- Zakkar M, Van der Heiden K, Luong le A, et al. Activation of Nrf2 in endothelial cells protects arteries from exhibiting a proinflammatory state. *Arterioscler Thromb Vasc Biol.* 2009 Nov;29(11):1851-57. [PMID: 19729611]
- Noyan-Ashraf MH, Sadeghnejad Z, Juurink BH. Dietary approach to decrease aging-related CNS inflammation. *Nutr Neurosci.* 2005 Apr;8(2):101-10. [PMID: 16053242]
- Gao X, Talalay P. Induction of phase 2 genes by sulforaphane protects retinal pigment epithelial cells against photooxidative damage. *Proc Natl Acad Sci USA.* 2004 July;101(28):10446-51. [PMID: 15229324]
- Wu L, Noyan Ashraf MH, Facci M, et al. Dietary approach to attenuate oxidative stress, hypertension, and inflammation on the cardiovascular system. *Proc Natl Acad Sci USA.* 2004 May;101(18):7094-99. [PMID: 15103025]
- Heaney RP, Recker RR, Grote J, et al. Vitamin d3 is more potent than vitamin d2 in humans. *J Clin Endocrinol Metab.* 2011 Mar;96(3):E447-52. [PMID: 21177785]
- Toubi E, Shoenfeld Y. The role of vitamin D in regulating immune responses. *Isr Med Assoc J.* 2010 Mar;12(3):174-75. [PMID: 20684184]
- Cannell JJ, Hollis BW. Use of vitamin D in clinical practice. *Altern Med Rev.* 2008 Mar;13(1):6-20. [PMID: 18377099]
- Heany RP. Vitamin D in health and disease. *Clin J Am Soc Nephrol.* 2008 Sep;3(5):1535-41. [PMID: 18525006]

Additional references available upon request

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All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

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