OptiCleanse® GHI

Support for Gastrointestinal System, Hepatic Function, and Cytokine Balance*

Available in Vanilla Delight, Creamy Chocolate, & Chai

Clinical Applications

- Supports Natural Detoxification Mechanisms*
- Supports Gastrointestinal Health*
- Supports a Balanced Cytokine Profile*
- Lactose-Free Vegan Protein Source*

OptiCleanse® GHI *is a comprehensive, fructose-free, low-allergy–potential dietary supplement designed to support gastrointestinal (GI) function and balanced detoxification. It features VegaPro™, XYMOGEN's proprietary amino acid and pea/rice protein blend; Aminogen®, to facilitate protein absorption; phytonutrients; mineral amino acid chelates; and activated B vitamins, including Quatrefolic® and methylcobalamin. In conjunction with a modified elimination diet, OptiCleanse GHI addresses GI and hepatic function as well as eicosanoid balance and cytokine metabolism. This formula is suitable for vegans.**

Discussion

OptiCleanse® GHI contains macro- and micronutrients, as well as a host of ingredients (some patented or proprietary) that support fatty acid metabolism, gastrointestinal health, and healthy eicosanoid and cytokine metabolism. Activated cofactors support mitochondrial energy production needed for biotransformation and detoxification. This formula's ingredients help moderate phase I detoxification, upregulate and support phase II pathways, and provide antioxidant support as well.*

Protein Metabolism

VegaPro is XYMOGEN's proprietary blend of pea protein isolate and rice protein concentrate, L-glutamine, glycine, and taurine. Generation of glutathione and sulfation cofactors—vital for phase II conjugation—requires an array of amino acids. The combination of pea protein and rice protein, containing a complement of amino acids, achieves an amino acid score of 100%. Glutamine, a conditionally essential and versatile amino acid with two nitrogen moieties, is crucial to nitrogen metabolism and helps maintain healthy liver tissue and function.[1,2] The amino acid glycine is needed for bile synthesis, phase II detoxification, and glutathione production. Taurine, a derivative of the sulfur-containing amino acid cysteine, is also important for synthesis of bile salts and helps stabilize cell membranes.*

Gastrointestinal Support

Ginger root, included to support healthy digestion including the release of bile from the gallbladder, acts at several sites to moderate PGE(2) production and support the normal response to inflammation.[3] Fiber (from inulin and flaxseeds) supports production of short-chain fatty acids as well as a healthy intestinal flora. **MeadowPure™**, an organic flaxseed complex, possesses excellent oxidative stability, supports antioxidant activity, and provides lignins, soluble fiber, and omega-3 and omega-6 essential fatty acids.[4] **Glutamine** plays a key role in healthy intestinal cell proliferation and gut barrier integrity, immune function, and normal tissue healing.*[1,2]

Detoxification Support

Ellagic acid (from pomegranate extract) prevents over-induction of CYP1A enzymes, works at the gene level to induce synthesis of glutathione-S-transferases and other phase II activities, binds directly to toxins, and protects DNA and hepatocytes.[5,6] **Watercress** is a rich source of beta-phenylethyl isothiocyanate (PEITC)—a versatile compound found to inhibit phase I enzymes and induce the phase II enzymes associated with biotransformation and excretion of toxins. Watercress was found to contain even stronger phase II inducers known as 7-methylsulfinyheptyl and 8-methylsulfinyloctyl isothiocyanates as well.[7,8] **Green tea catechins** not only support antioxidant activity but also appear to act as modulators of phase I and phase II detoxification.[9] **Choline** is present to support lipid metabolism in the liver and can be converted to betaine, a methyl donor.*[10]

The active, bioavailable form of **B vitamins** (pyridoxal-5'-phosphate (B6), 5-methyltetrahydrofolate (folate), methylcobalamin (B12)) and glycine all support amino acid conjugation and are vital for the detoxification of xenobiotics and xenoestrogens. 5-methyltetrahydrofolate (5-MTHF), methylcobalamin, betaine, and **methylsulfonylmethane** (MSM) are present to support methylation and detoxification. 5-MTHF supports healthy folate nutrition, especially in those with variations in folate metabolism. In OptiCleanse GHI, 5-MTHF is provided as Quatrefolic® for enhanced stability, solubility, and bioavailability.*[11]

Preventium®, a patented form of potassium hydrogen d-glucarate, supports glucuronidation. Sulfation is supported by **MSM** and **sodium sulfate**. Acetylation is supported by **d-calcium pantothenate**, pyridoxal-5'-phosphate, and magnesium. Several minerals in OptiCleanse GHI are provided as Albion® mineral chelates and TRAACS® mineral amino acid chelates for enhanced gastrointestinal absorption and bioavailability.*[12]

Antioxidant Support and Cytokine Balance

Bioflavonoids, quercetin, rutin, and **curcumin** support antioxidant activity, counter free radicals, and support healthy eicosanoid and cytokine metabolism.[13,14] Curcumin has a long history of use for its support of a normal, healthy response to inflammation.[15] **N-acetyl-cysteine (NAC)** stimulates glutathione synthesis, enhances glutathione-S-transferase activity, and promotes detoxification.[16] **Selenium glycinate** provides support for glutathione metabolism and antioxidant protection.*

OptiCleanse GHI provides an array of nutrients that supports gastrointestinal health; detoxificati on and antioxidant mechanisms; and a normal, healthy response to inflammation and cytokine balance. This formula is designed to be used as part of a step-approach cleanse in conjunction with a modified elimination plan.*

*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.

Antioxidant Activity

Cytokine Balance Support

Detoxification

Gastrointestinal Support

Liver Support

OptiCleanse® GHI Vanilla Delight Supplement Facts

Serving Size: 2 Scoops (about 57 g)

	Amount Per Serving	%DV
Calories	230	
Total Fat	7 g	9%*
Saturated Fat	1.5 g	8%*
Total Carbohydrate	15 g	5%*
Dietary Fiber	3 g	11%
Total Sugars	5 g	**
Includes 5g Added Sugars		10%
Protein	26 g	
Vitamin A (as natural beta-carotene)	750 mcg	83%
Vitamin C (as sodium ascorbate)	250 mg	278%
Thiamin (as thiamine HCl)	15 mg	1250%
Riboflavin (as riboflavin 5'-phosphate sodium)	5 mg	385%
Niacin (as niacinamide and niacin)	40 mg	250%
Vitamin B6 (as pyridoxal 5'-phosphate)	5 mg	294%
Folate (as Quatrefolic® (6S)-5-methyltetrahydrofolic acid, glucosamine salt)	200 mcg DFE	50%
Vitamin B12 (as methylcobalamin)	50 mcg	2083%
Biotin	150 mcg	500%
Pantothenic Acid (as d-calcium pantothenate)	35 mg	700%
Choline (as choline bitartrate)	100 mg	18%
Calcium (as DimaCal® di-calcium malate and ingredients with naturally occurring calcium)	220 mg	17%
Iron (naturally occurring)	5 mg	28%
Iodine (as potassium iodide)	60 mcg	40%
Magnesium (as Albion® di-magnesium malate)	140 mg	33%
Zinc (as TRAACS® zinc bisglycinate chelate)	10 mg	91%
Selenium (as Albion® selenium glycinate complex)	100 mcg	182%
Manganese (as TRAACS® manganese bisglycinate chelate)	2 mg	87%
Chromium (as TRAACS® chromium nicotinate glycinate chelate)	60 mcg	171%
Molybdenum (as TRAACS® molybdenum glycinate chelate)	35 mcg	78%
Sodium (from ingredients with naturally occurring sodium, sodium sulfate anhydrous, and sodium ascorbate)	560 mg	24%
Potassium (from tripotassium citrate and ingredients with naturally occurring potassium)	455 mg	10%
Stabilized Flaxseed	5.6 g	**
Typical Alpha-Linolenic Acid Content	1.28 g	**
Typical Linoleic Acid Content	392 mg	**
Pomegranate Extract (*Punica granatum*)(hull)(40% ellagic acid)	400 mg	**
Betaine Anhydrous (trimethylglycine)	250 mg	**
Lemon Bioflavonoid Complex (*Citrus × limon*)(fruit peel)(25% bioflavonoids)	250 mg	**
Quercetin (as quercetin dihydrate from *Dimorphandra mollis*)(pod)	250 mg	**
Preventium® (potassium d-glucarate)	250 mg	**
Rutin (from *Sophora japonica*)(bud)	200 mg	**
BCM-95® Turmeric Extract (*Curcuma longa*)(rhizome)(95% total curcuminoids complex, including curcumin, curcuminoids, and volatile oils)(86% curcuminoids)(65% curcumin)	200 mg	**
N-Acetyl-L-Cysteine	150 mg	**
Ginger (*Zingiber officinale*)(rhizome)	150 mg	**
Methylsulfonylmethane (MSM)	120 mg	**
Sodium Sulfate Anhydrous	100 mg	**
Watercress (*Nasturtium officinale*)(herb)	100 mg	**
Green Tea Aqueous Extract (*Camellia sinensis*)(leaf)(80% polyphenols, 60% catechins, 30% EGCG, 6% caffeine)	82 mg	**

* Percent Daily Values (DV) are based on a 2,000 calorie diet.
** Daily Value not established.

Other Ingredients: VegaPro™ (XYMOGEN's proprietary blend of pea protein isolate, taurine, glycine, rice protein concentrate, and L-glutamine), dried cane syrup, sunflower oil, natural flavors (no MSG), medium-chain triglyceride oil, cellulose gum, xanthan gum, Aminogen® fungal proteases, stevia leaf extract, guar gum, and silica.

DIRECTIONS: Blend, shake, or briskly stir 2 level scoops (57 g) into 10-12 ounces chilled, pure water (or mix amount for desired thickness) and consume once daily, or use as directed by your healthcare practitioner.

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

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

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.

Also available in Creamy Chocolate, & Chai.

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

Preventium® is a registered trademark of Applied Food Sciences, LLC. (US patents 4,845,123, 5,364,644, 5,561,160).

BCM-95® is a registered trademark of DolCas Biotech, Ltd. Protected under US patents 7,883,728; 7,736,679; and 7,879,373.

VegaPro™ 100% VEGAN 100% GLUTEN-FREE

AMINOGEN® is a registered trademark of Innophos Nutrition, Inc. AMINOGEN® is protected under US patent 5,387,422.

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

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Additional references available upon request.

Due to the evolving nature of interactions and contraindications, it is advised that practitioners consult a current database for new information.

Typical Amino Acid Profile Per Serving:

Alanine	1,280 mg
Arginine	2,580 mg
Aspartic Acid	3,400 mg
Cysteine	300 mg
Glutamic Acid	4,990 mg
Glycine	1,720 mg
Histidine	740 mg
Isoleucine	1,330 mg
Leucine	2,490 mg
Lysine	2,120 mg
Methionine	330 mg
Phenylalanine	1,630 mg
Proline	1,340 mg
Serine	1,570 mg
Taurine	1,160 mg
Threonine	500 mg
Tryptophan	300 mg
Tyrosine	1,130 mg
Valine	1,490 mg

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All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

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