

OptiCleanse[®] GHI Sugar- & Stevia-Free[†]

Support for Gastrointestinal System, Hepatic Function, and Cytokine Balance[†]



Available in Vanilla Delight and Creamy Chocolate

[†]This formula is not a low-calorie dietary supplement. Please see the Supplement Facts panel for more details.

Discussion

OptiCleanse[®] GHI Sugar- & Stevia-Free[†] is now sweetened with a natural, high-potency sweetener extracted from monk fruit. This generally recognized as safe (GRAS) monk-fruit extract offers a high-quality sweetness and flavor without the bitter aftertaste associated with some natural sweeteners.

Like XYMOGEN's other OptiCleanse GHI formulas, OptiCleanse[™] GHI Sugar- & Stevia-Free[†] 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 such as 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] The flaxseed is extensively milled, which provides a smoother mouthfeel and less grit than earlier versions of OptiCleanse formulas. **Glutamine** plays a key role in healthy intestinal cell proliferation and gut barrier integrity, immune function, and normal tissue healing.^[11,2]

Clinical Applications

- » Supports Natural Detoxification Mechanisms[†]
- » Supports Gastrointestinal Health[†]
- » Supports a Balanced Cytokine Profile[†]
- » Lactose-Free Vegan Protein Source[†]

OptiCleanse[®] GHI Sugar- & Stevia-Free[†] is a comprehensive, monk-fruit-extract-sweetened, 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 Sugar- and Stevia-Free[†] addresses GI and hepatic function as well as eicosanoid balance and cytokine metabolism. This formula is suitable for vegans.[†]

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 has been found to contain even stronger phase II inducers known as 7-methylsulfinylheptyl and 8-methylsulfinylloctyl 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 individuals with variations in folate metabolism. In OptiCleanse GHI, 5-MTHF is provided as Quatrefolic[®] for enhanced stability, solubility, and bioavailability.^[11,11]

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.^[11,2]

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.[†]

[†]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.

XYMOGEN[®] Exclusive Professional Formulas
800-647-6100 | www.xymogen.com

Antioxidant Activity

Cytokine Balance Support

Detoxification

Gastrointestinal Support

Liver Support

Antioxidant Activity

Cytokine Balance Support

Detoxification

Gastrointestinal Support

Liver Support

OptiCleanse® GHI Sugar- & Stevia-Free Vanilla Delight Supplement Facts

Serving Size: 1 Packet (about 53 g)

	Amount Per Serving	%DV
Calories	210	
Total Fat	8 g	10%†
Saturated Fat	2 g	10%†
Total Carbohydrate	10 g	4%†
Dietary Fiber	4 g	14%
Protein (from Pea Protein Isolate and Rice Protein Concentrate)	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 [6S]-5-methyltetrahydrofolic acid, glucosamine salt) ^{S1}	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 dicalcium malate ^{S2} and ingredients with naturally occurring calcium)	225 mg	17%
Iron (naturally occurring)	5 mg	28%
Iodine (as potassium iodide)	60 mcg	40%
Magnesium (as di-magnesium malate) ^{S2}	140 mg	33%
Zinc (as zinc bisglycinate chelate) ^{S2}	10 mg	91%
Selenium (as selenium glycinate complex) ^{S2}	100 mcg	182%
Manganese (as manganese bisglycinate chelate) ^{S2}	2 mg	87%
Chromium (as chromium nicotinate glycinate chelate) ^{S2}	60 mcg	171%
Molybdenum (as molybdenum glycinate chelate) ^{S2}	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	1.28 g	**
Typical Linoleic Acid	392 mg	**
Pomegranate Extract (<i>Punica granatum</i>)(hull)(40% ellagic acid)	400 mg	**
Betaine Anhydrous (trimethylglycine)	250 mg	**
Lemon Bioflavonoid Complex (<i>Citrus x limon</i>)(fruit peel)(25% bioflavonoids)	250 mg	**
Quercetin (as quercetin dihydrate from <i>Dimorphandra mollis</i>)(pod)	250 mg	**
Potassium d-glucarate ^{S3}	250 mg	**
Rutin (from <i>Sophora japonica</i>)(bud)	200 mg	**
Turmeric Extract (<i>Curcuma longa</i>)(rhizome)(95% total curcuminoids complex, including curcumin, curcuminoids, and volatile oils)(86% curcuminoids)(65% curcumin) ^{S4}	200 mg	**
N-Acetyl-L-Cysteine	150 mg	**
Ginger (<i>Zingiber officinale</i>)(rhizome)	150 mg	**
Methylsulfonylmethane (MSM)	120 mg	**
Sodium Sulfate Anhydrous	100 mg	**
Watercress (<i>Nasturtium officinale</i>)(aerial parts)	100 mg	**
Green Tea Aqueous Extract (<i>Camellia sinensis</i>)(leaf)(80% polyphenols, 60% catechins, 30% EGCG, 6% caffeine)	82 mg	**

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

** Daily Value (DV) not established.

Other Ingredients: Sunflower oil, natural flavors (no MSG), medium-chain triglyceride oil, taurine, glycine, cellulose gum, xanthan gum, fungal proteases^{S5}, L-glutamine, monk fruit extract, guar gum, and silica.

DIRECTIONS: Blend, shake, or briskly stir the contents of one packet (53 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 professional.

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

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

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

*This formula is not a low-calorie dietary supplement. Please see the Supplement Facts panel for more details.

Also available in Creamy Chocolate Sugar- & Stevia-Free.

 **Quatrefolic**® S1. Quatrefolic® is a registered trademark of Gnosis S.p.A. Produced under US Patent 7,947,662.

 S2. Albion®, DimaCal®, TRAACS®, and the Albion Gold Medallion® are registered trademarks of Albion Laboratories, Inc. Malates covered by US patent 6,706,904.



References

- Smith RJ, Wilmore DW. Glutamine nutrition and requirements. *JPEN J Parenter Enteral Nutr.* 1990 Jul-Aug;14(4 Suppl):94S-99S. Review. [PMID: 2119461]
- Lacey JM, Wilmore DW. Is glutamine a conditionally essential amino acid? *Nutr Rev.* 1990 Aug;48(8):297-309. Review. [PMID: 2080048]
- Lantz RC, Chen GJ, Sarihan M, et al. The effect of extracts from ginger rhizome on inflammatory mediator production. *Phytomedicine.* 2007 Feb;14(2-3):123-28. [PMID: 16709450]
- Adolphe JL, Whiting SJ, Juurlink BH, Thorpe LU, Alcorn J. Health effects with consumption of the flax lignan secoisolariciresinol diglucoside. *Br J Nutr.* 2010 Apr;103(7):929-38. Review. [PMID: 20003621]
- Barch DH, Rundhaugen LM, Stoner GD, et al. Structure-function relationships of the dietary anticarcinogen ellagic acid. *Carcinogenesis.* 1996 Feb;17(2):265-9. [PMID: 8625448]
- Girish C, Koner BC, Jayanthi S, et al. Hepatoprotective activity of picroliv, curcumin and ellagic acid compared to silymarin on paracetamol induced liver toxicity in mice. *Fundam Clin Pharmacol.* 2009 Dec;23(6):735-45. [PMID: 19656205]
- Rose P, Faulkner K, Williamson G, et al. 7-Methylsulfinylheptyl and 8-methylsulfinylheptyl isothiocyanates from watercress are potent inducers of phase II enzymes. *Carcinogenesis.* 2000 Nov;21(11):1983-8. [PMID: 11062158]
- Hofmann T, Kuhnert A, Schubert A, et al. Modulation of detoxification enzymes by watercress: in vitro and in vivo investigations in human peripheral blood cells. *Eur J Nutr.* 2009 Dec;48(8):483-91. [PMID: 19636603]
- Akhlaghi M, Bandy B. Dietary green tea extract increases phase 2 enzyme activities in protecting against myocardial ischemia-reperfusion. *Nutr Res.* 2010 Jan;30(1):32-39. [PMID: 20116658]
- Linus Pauling Institute. <http://lpi.oregonstate.edu/infocenter/othernuts/choline/>. Accessed May 8, 2012.
- Quatrefolic. <http://www.quatrefolic.com/>. Accessed May 8, 2012.
- Albion. <http://www.albionminerals.com/>. Accessed May 8, 2012.
- Garg R, Gupta S, Maru GB. Dietary curcumin modulates transcriptional regulators of phase I and phase II enzymes in benzo[a]pyrene-treated mice: mechanism of its anti-initiating action. *Carcinogenesis.* 2008 May;29(5):1022-32. [PMID: 18321868]
- Amália PM, Possa MN, Augusto MC, et al. Quercetin prevents oxidative stress in cirrhotic rats. *Dig Dis Sci.* 2007 Oct;52(10):2616-21. [PMID: 17431769]
- Jurenka JS. Anti-inflammatory properties of curcumin, a major constituent of *Curcuma longa*: a review of preclinical and clinical research. *Altern Med Rev.* 2009 Jun;14(2):141-53. [PMID: 19594223]
- Kelly GS. Clinical applications of N-acetylcysteine. *Altern Med Rev.* 1998 Apr;3(2):114-27. Review. [PMID: 9577247]

Additional references available upon request

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

S3. Preventium® is a registered trademark of Applied Food Sciences, LLC. (US patents 4,845,123, 5,364,644, 5,561,160).

S4. BCM-95® is an exclusivity licensed registered trademark to Arjuna Natural Pvt Ltd. Protected under US patents 7,883,728; 7,736,679; and 7,879,373.

S5. AMINOGEN® is a registered trademark of Innophos Nutrition, Inc. AMINOGEN® is protected under U.S. patent 5,387,422.

All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

†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.

© XYMOGEN
DRS-297
Rev. 10/30/20

