

Bio Detox GHI



Clinical Applications

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

*Bio Detox GHI is a comprehensive, fructose-free, low-allergy-potential dietary supplement designed to support gastrointestinal (GI) function, balanced detoxification, and a normal, healthy response to inflammation. It features Vegan Protein Blend, Star Walker Suppleceuticals's proprietary amino acid and pea/rice protein blend; Aminoger®, to facilitate protein absorption; phytonutrients; mineral amino acid chelates; and activated B vitamins, including Quatrefolic®† and methylcobalamin. In conjunction with a modified elimination diet, Bio Detox GHI addresses GI and hepatic function as well as eicosanoid balance and cytokine metabolism. This formula is suitable for vegans.**

All Star Walker Suppleceuticals Formulas Meet or Exceed cGMP Quality Standards

Discussion

Bio Detox 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

Vegan Protein Blend is Star Walker Suppleceuticals'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-methylsulfinylheptyl 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 Bio Detox 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 Bio Detox GHI are provided as Albion® mineral chelates and TRAACS® mineral amino acid chelates for enhanced gastrointestinal absorption and bioavailability.*^[12]

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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.**





Vanilla

Supplement Facts

Serving Size: 2 Scoops (58 g)
Servings Per Container: 14

Amount Per Serving	%Daily Value*		%Daily Value*
Calories 210			
Calories from Fat 50			
Total Fat 5 g	8%		
Saturated Fat 0 g	0%		
Trans Fat 0 g			
Polyunsaturated Fat 0.5 g			
Monounsaturated Fat 2 g			
Cholesterol 0 mg	0%		
Total Carbohydrate 16 g	5%		
Dietary Fiber 3 g	12%		
Soluble Fiber 3 g			
Sugars 7 g			
Other Carbohydrate 4 g			
Protein 26 g	52%		
Vitamin A (as beta-carotene)	2500 IU 50%	Iodine (as potassium iodide)	60 mcg 40%
Vitamin C (as sodium ascorbate)	250 mg 417%	Magnesium (as Di-Magnesium Malate)	140 mg 35%
Thiamin (as thiamin HCl)	15 mg 1000%	Zinc (as TRAACS® Zinc Glycinate Chelate)	10 mg 67%
Riboflavin (as riboflavin 5'-phosphate)	5 mg 294%	Selenium (as Selenium Glycinate Complex)	100 mcg 143%
Niacin (as niacinamide and niacin)	40 mg 200%	Manganese (as TRAACS® Manganese Glycinate Chelate)	2 mg 100%
Vitamin B6 (as pyridoxal 5'-phosphate)	5 mg 250%	Chromium (as TRAACS® Chromium Nicotinate Glycinate Chelate)	60 mcg 50%
Folate (as 5-methyltetrahydrofolate)	200 mcg 50%	Molybdenum (as TRAACS® Molybdenum Glycinate Chelate)	35 mcg 47%
Vitamin B12 (as methylcobalamin)	50 mcg 833%	Sodium	230 mg 10%
Biotin	150 mcg 50%	Potassium	330 mg 9%
Pantothenic Acid (as d-calcium pantothenate)	35 mg 350%		
Calcium (as DimaCal® Di-Calcium Malate)	200 mg 20%		
Phosphorus (as potassium phosphate)	125 mg 12%		
MeadowPure® (organic stabilized flaxseed complex)	5.6 g **	N-Acetyl-Cysteine	150 mg **
Alpha Linolenic Acid (from MeadowPure)	1.26 g **	Ginger Root Powder (<i>Zingiber officinale</i>)(rhizome)	150 mg **
Linoleic Acid (from MeadowPure)	392 mg **	Methylsulfonylmethane	120 mg **
Pomegranate Extract (<i>Punica granatum</i>)(hull)	400 mg **	Sodium Sulfate	100 mg **
(80% polyphenols and 40% ellagic acid)		Watercress Powder (<i>Rorippa nasturtium aquaticum</i>)	100 mg **
Betaine (as trimethylglycine)	250 mg **	(aerial part)	
Lemon Bioflavonoid Complex (<i>Citrus x limon</i>)	250 mg **	Choline (as choline bitartrate)	100 mg **
(fruit peel)(25% bioflavonoids)		Green Tea Extract (<i>Camellia sinensis</i>)(leaf)	82 mg **
Quercetin (as quercetin dihydrate from <i>Sophora japonica</i>)(flower)	250 mg **	(98% polyphenols, 80% catechins, 60% EGCG, and 0.5% caffeine)	
Preventium® (potassium d-glucarate)	250 mg **		
Rutin (from <i>Sophora japonica</i>)(flower)	200 mg **		
Turmeric Extract (<i>Curcuma longa</i>)(root)	200 mg **		
(95% curcuminoids)			

Other Ingredients: Vegan Protein Blend (Proprietary blend of pea protein isolate, rice protein concentrate, glycine, L-glutamine, and taurine), evaporated cane juice, sunflower oil, natural flavors, inulin (from chicory) medium-chain triglycerides, potassium citrate, Aminogen®, brown rice syrup solids, sodium citrate, sodium chloride, xanthan gum, carrageenan, guar gum, and stevia leaf extract.



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



† Quatrefolic® is a registered trademark of Gnosis S.p.A. Patents pending.

Aminogen® is a Registered Trademark of Triarco Industries. Aminogen® is protected by U.S. patent No. 5,387,422. Preventium® is a registered trademark of Applied Food Sciences, LLC. (US patents 4,845,123; 5,364,644; 5,561,160).

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Cautions

Consult your healthcare practitioner before use, especially if you are receiving cancer treatment or taking an anticoagulant. Keep out of reach of children. Do not take if you are pregnant or allergic to any ingredient.

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DRS-218

REV. 11/02/12

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.*

Bio Detox GHI provides an array of nutrients that supports gastrointestinal health; detoxification 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.*

Directions

Blend, shake, or briskly stir 2 level scoops (58 g) into 8-12 ounces chilled, pure water (or mix amount for desired thickness) and consume at least once daily, or use as directed by your healthcare practitioner.