



MASSZYMES

Comprehensive plant-based digestive enzymes plus AstraZyme® designed to enhance nutrient digestion and absorption, protect against digestive discomfort, and support muscle building and recovery*

FEATURES

- Highest potency enzyme product available with 17 plant-based digestive enzymes including five different proteases*
- Endopeptidase and exopeptidase activity providing 100,000 protein-digesting units per capsule*
- Full spectrum formula offers digestive enzymes with peak activity at different pH levels, ensuring optimal digestion throughout the entire digestive tract*
- Pepsin-free formula ideal for vegetarians and vegans
- Features AstraZyme®, a proprietary extract of astragalus and Panax ginseng shown to increase amino acid absorption by 70% and peptide absorption by 41%*†
- Gluten-free, vegan, soy-free formula

BENEFITS

- Helps facilitate comprehensive digestion and assimilation of proteins, carbohydrates and fats*
- Proprietary Tri-pHase protease blend works at every pH from 2 to 12, ensuring proteolytic enzyme activity at every stage of digestion*
- Helps support balanced microbiome by protecting against uncontrolled fermentation in gut*
- Helps reduce occasional gas, bloating and indigestion*
- Helps boost pre-workout energy and athletic performance by optimizing carbohydrate and fat metabolism*
- Helps build muscle mass and shorten exercise recovery time by optimizing protein metabolism*

Supplement Facts

Serving Size: 3 Capsules
Servings Per Container: 83

	Amount Per Serving
Tri-PHase Protease (300,000 HUT) (endo- and exo-peptidases)	627 mg *
Protease 4.5 (Aspergillus oryzae ferment)	255,000 HUT
Protease 3.0 (Aspergillus niger)	180 SAPU
Peptidase (Aspergillus oryzae ferment)	15,000 HUT
Protease 6.0 (Aspergillus oryzae ferment)	30,000 HUT
Enzyme Blend	466 mg *
Amylase (Aspergillus oryzae ferment)	22,500 DU
Bromelain (Ananas comosus extract)	3,000,000 FCCPU
Alpha-galactosidase (Aspergillus niger ferment)	450 GalU
Glucoamylase (Aspergillus niger ferment)	30 AGU
Lactase (Aspergillus oryzae ferment)	3,000 ALU
Lipase (Aspergillus niger)	3,000 FIP
Invertase (Saccharomyces cerevisiae ferment)	1,275 SU
Malt Diastase (Aspergillus oryzae)	975 DP*
Phytase (Aspergillus niger)	9 U
Pectinase (Aspergillus niger)	21 ENDO-PG
Hemicellulase (Aspergillus niger)	1,200 HCU
Cellulase (Trichoderma longibrachiatum)	900 CU
Beta Glucanase (Trichoderma longibrachiatum)	9 BG
AstraZyme™ (Proprietary blend of proteolytic enzymes with 105 mg extracts of astragalus/notoginseng and trace minerals)	

*Daily Value not established

OTHER INGREDIENTS: RICE EXTRACT, CAPSULE (VEGETABLE CELLULOSE AND WATER)

Directions: Take three capsules with each meal. Alternately, may take 1-3 capsules with each meal and 1-2 capsules between meals. Store in a cool/dry location.

Form: Veg Caps

Available Sizes: 30/120/250 ct

Item Codes: 1783 (30 ct), 897 (120 ct), 768 (250 ct)

*These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

†www.astrazyme.com



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CLINICAL DISCUSSION

Digestive enzymes are specialized compounds present in saliva, pancreatic secretions, and the brush border of the small intestine that serve to facilitate breakdown of macronutrients (proteins, carbohydrates and lipids). Without adequate digestive enzyme levels, food is not properly broken down into smaller components capable of passing through the intestinal wall and into the body.

Numerous factors contribute to diminished digestive enzyme activity including diets high in refined carbohydrates, hypochlorhydria, intestinal inflammation, high caloric intake, alcohol intake, micronutrient deficiency, gall stones, and stress.¹ Insufficient digestive enzymes can lead to malabsorption, indigestion, discomfort after meals, gas/bloating, stool changes, reduced muscle mass, low energy, mood changes, and cognitive issues.²

Our bodies require an array of enzymes to accommodate the diverse diets we consume. Proteases are essential for digesting proteins and polypeptides into amino acids that can then be properly absorbed. Worth special mention, bromelain is a proteolytic enzyme derived from the stem of pineapples that has been widely studied as an anti-inflammatory due to its effects on leukocyte, prostaglandin and bradykinin levels.³⁻⁶

Lipase is an important pancreatic enzyme responsible for digesting dietary fats. Reduced lipase activity can impair absorption of fat-soluble vitamins like vitamin D, potentially leading to deficiency.⁷

Amylase, malt diastase, glucoamylase, beta-glucanase, invertase, pectinase and lactase all play an important role in cleavage of polysaccharides and oligosaccharides. Many of these enzymes are located within the brush border and are frequently low in individuals with gut inflammation.⁸ In fact, it is estimated that 68% of humans have reduced lactase activity.⁹

Alpha-galactosidase is involved in glycoprotein and glycolipid metabolism, while cellulose and hemicellulose help breakdown plant matter that can be challenging to digest. Lastly, phytase plays an important role in mineral absorption.^{10,11}

REFERENCES

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