

SerenAid®

Enzyme blend specific for gluten, casein, and other small peptides

Introduction

SerenAid® is a proprietary blend of fungal-derived enzymes formulated to provide focused support for digestion of proteins and carbohydrates from plant and animal sources, such as casein (dairy), gluten (wheat, oats, and other grains), and soy.[†] Exorphinase®, a patented blend of enzymes with dipeptidyl peptidase IV (DPP-IV) activity, break down small protein units not typically digested by other enzyme products to further support healthy digestion and efficient absorption.[†]

Product features

- Microbial enzyme blend with DPP-IV activity to support the unique proteolytic needs, e.g., of children on the spectrum.[†]
- Post-proline and prolyl bond cleavage supports proteolysis of casein, gluten, and their exorphin peptides, casomorphins, and gluteomorphins.[†]
- Proprietary, patented combination of peptidase and protease enzymes with DPP-IV activity to support hydrolysis of opiate-acting exorphin peptides.[†]
- Free of the following common allergens: milk/casein, eggs, fish, shellfish, peanuts, wheat, gluten, and soybeans. Contains no artificial colors, flavors, or preservatives.

Background

Digestive enzymes are produced and secreted in the first half of the digestive tract by the salivary glands, stomach, pancreas, and small intestine. Research suggests that orally administered digestive enzymes may supplement the actions of endogenous enzymes to promote improved digestion of proteins, carbohydrates, and fats.[†] Exogenous enzymes particularly support hydrolysis of small protein peptides, such as casomorphins and gluteomorphins that, left undigested, may affect central nervous system function in some individuals.^{†1}

How SerenAid® works

Exorphinase®, a proprietary combination of proteolytic enzymes contained in SerenAid®, assists the digestion of dietary proteins.[†] With both endo- and exopeptidase activity, Exorphinase® has a broad spectrum of hydrolytic activity, supporting the breakdown of even small peptide bonds.[†] In humans, several clinical studies have demonstrated health benefits of supplemental proteolytic enzymes. In one open-label trial, a 15-day administration of a multi-enzyme supplement containing both plant- and fungal-derived proteases significantly increased serum protein levels in elderly subjects, reflecting improved digestibility and enhanced nutritional status.²

One of the unique features of Exorphinase® is that it has DPP-IV activity without containing the DPP-IV *enzyme* (DPP-IV enzyme supplementation may be contraindicated in some individuals with blood sugar issues). DPP-IV activity is exopeptidase, meaning that there is cleavage of specific, terminal, proline-containing dipeptides in proteins, such as those found in gluten and casein. Prolyl peptides demonstrate immune-irritating and neuroactive activity in certain individuals.³ DPP-IV-like exopeptidase activity helps reduce levels of prolyl peptides in the intestinal tract, and may thus minimize unwanted neurologic and immune responses. Although DPP-IV is normally secreted by cells of the intestinal brush border, supplementation with exogenous enzymes providing DPP-IV activity may complement endogenous DPP-IV and support improved protein breakdown, without adverse effects on blood sugar.[†]

Supplementation with exogenous lactase has a long history of use for supporting lactose digestion. Research demonstrates that supplementation with lactase can significantly improve occasional symptoms of bloating, abdominal pain, flatulence, and diarrhea sometimes associated with dairy consumption.^{†4}

Conclusion

SerenAid® is designed to support more complete breakdown of a broad range of plant and animal proteins, including casein, gluten, and soy proteins.[†] The addition of Exorphinase® proprietary enzyme blend further assists in hydrolyzing small protein peptides that can adversely affect immune and nervous system function in some individuals.[†] The addition of lactase further supports the digestion of lactose carbohydrates from dairy products.

†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.

Formula

Supplement Facts

Serving Size 2 Capsules

Amount Per 2 Capsules

Exorphinase® Proprietary Enzyme Blend Providing Peptidase and Protease Enzymes (54,000 HUT, 130 AP, 50 SAPU)Δ with Endopeptidase, Exopeptidase, and Dipeptidyl Peptidase IV (DPP-IV) activity and 20 mg Lactase (2,000 ALC)Δ	455 mg*
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*Daily Value not established.



Other ingredients: Vegetarian capsule (hydroxypropyl methylcellulose, water), cellulose, and coconut oil powder.

ΔUnits are those used in edition nine (IX) of the Food Chemicals Codex (FCC).

S123-C180 180 vegetarian capsules

Suggested use

2 capsules at the beginning of each meal or as directed by a healthcare professional. **Caution:** If you are pregnant, nursing, have a medical condition, or taking prescription drugs, consult your healthcare professional before using this product. Keep out of reach of children.

How supplied

180 vegetarian capsules per bottle.

Storage

Store in a cool, dry place (59°F to 85°F) away from direct light. Keep out of reach of children.

References

1. Sokolov O, Kost N, Andreeva O, et al. Autistic children display elevated urine levels of bovine casomorphin-7 immunoreactivity. *Peptides*. 2014 Jun;56:68-71.
2. Glade MJ, Kendra D, Kaminski MV. Improvement in protein utilization in nursing-home patients on tube feeding supplemented with an enzyme product derived from *Aspergillus niger* and bromelain. *Nutrition* 2001;17:348-50.
3. Detel D, Persic M, Varljen J. Serum and intestinal dipeptidyl peptidase IV (DPP-IV/CD26) activity in children with celiac disease. *J Pediatr Gastroenterol Nutr* 2007;45:65-70.
4. Heyman MB, Committee on Nutrition. Lactose intolerance in infants, children, and adolescents. *Pediatrics*. 2006 Sep;118(3):1279-86.

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