

Proteolytic Enzymes

**Doctor's
BEST**

Science-Based Nutrition™



INGREDIENTS

Doctor's Best Proteolytic Enzymes is a potent formulation containing a broad spectrum of proteolytic enzymes (proteases). Proteolytic enzymes function in the body to digest and break down proteins into their amino acid components. When taken as supplements, studies show that various proteolytic enzymes, including bromelain (from pineapple), papain (from papaya), serratiopeptidase (from bacteria), and fungal protease (from a non-pathogenic fungus medium), are absorbed through the lining of digestive tract and into the circulation.¹ These enzymes, once in the blood-stream, are available to facilitate chemical reactions throughout the body and have a wide range of applications.

Doctor's Best designed this exceptionally potent, high-quality proteolytic enzyme formula to include a broad spectrum of proteolytic enzymes from a variety of plant, bacterial, and fungal proteases. The goal was to create a blend that works at a variety of pH levels to support the body's native enzymatic needs. Maintaining optimal enzymatic function is a key factor in supporting the foundation for health and wellness of numerous individuals.

Bromelain – a general name for a family of proteolytic enzymes derived from the pineapple plant. Bromelain effects various systems in the body through a variety of physiological mechanisms.

Papain – a proteolytic enzyme derived from the sap (also called latex or milk) of unripe papaya. Traditionally used with bromelain.

Fungal amylase – an enzyme derived from the fungus *Aspergillus oryza*. Breaks down carbohydrates, such as starch, and glycogen.

Lipase – the main enzyme responsible for breaking down fats. Lipases hydrolyze triglycerides (fats) into their component fatty acid and glycerol molecules.

Protease (bacterial, fungal, neutral) – a group of enzymes whose catalytic function is to hydrolyze (breakdown) peptide bonds of proteins. Proteases differ in their ability to hydrolyze various peptide bonds. Bacterial proteases are optimally active in alkaline conditions, fungal proteases in more acidic conditions, and neutral proteases (from bacteria) are optimally active at a neutral pH.

Rutin – an antioxidant citrus flavonoid consisting of sugar molecules bound to a quercetin backbone. Rutin is known to modulate the immune and circulatory systems.

Serratiopeptidase – the “Miracle Enzyme” according to Dr. Han's Nieper, a legendary medical doctor known for his extensive use of proteolytic enzymes. This proteolytic enzyme has been shown to be more powerful than the pancreatic enzymes proteolytic enzymes chymotrypsin and trypsin.

BENEFITS

- Proteolytic Enzymes Provide Support for Muscle, Joint, & Overall Tissue Health*
- Serratiopeptidase Modulates the Immune System*

EXTENDED BENEFITS

Proteolytic Enzymes Provide Support for Muscle, Joint, and Overall Tissue Health*

In addition to their role in digestion, proteolytic enzymes serve another, much larger role in the body's chemical reactions: they activate tissue repair and break down cellular debris. This can improve the ability of important molecules and cells involved in the body's immune response to modulate the restorative processes within our tissues.

Human studies have demonstrated the effectiveness of proteolytic enzymes in supporting healthy joint and musculoskeletal health. Two recent double-blind studies conducted in Austria, for instance, found that systemic enzymes significantly promoted joint comfort.^{2,3} A number of other clinical studies also support the use of proteolytic enzymes for joint support.^{4,5}

Supplement Facts

Serving Size 3 Veggie Capsules
Servings Per Container 30

	Amount Per Serving	%Daily Value
Bromelain	576 GDU	†
Papain	10,077,000 PU	†
Amylase	36,000 DU	†
Lipase	405 FCC FIP	†
Neutral Protease	164,010 PC	†
Fungal Protease 4.0	34,800 HUT	†
Bacterial Protease	65,250 HUT	†
Rutin	30 mg	†
Serratiopeptidase	120,000 SPU	†

† Daily Value not established.

Other Ingredients: Microcrystalline cellulose, delayed release vegetarian capsule (modified cellulose, pectin, purified water).

Suggested Adult Use: Take 3 capsules daily without food, or as recommended by a nutritionally-informed physician.

Non-GMO / Gluten Free / Vegetarian

Store in a cool dry place.

* 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.

A large number of scientific studies published in the literature indicate proteolytic enzymes can provide support to other tissues in the body, in addition to joints, and to modulate the body's immune system.⁶⁻⁹

Studies have also examined the benefits of proteolytic enzymes to promote favorable viscosity of nasal mucus.¹⁰ A recent clinical trial of 116 children, for example, found bromelain beneficial for sinus health.¹¹ In 1994, the German Commission E officially approved the use of the proteolytic enzyme bromelain for sinus health.

Serratiopeptidase Modulates the Immune System*

Serratiopeptidase (or Serrapeptase) is a powerful proteolytic enzyme that has been used widely in clinical practice in Japan and Europe for over 30 years to modulate the immune system and the secretion of mucus. It is made by the bacteria *Serratia E15*, found in the digestive tract of silkworms, which harness the serratiopeptidase enzyme to break down food and the walls of their silk cocoons as they emerge in their moth state.

Serrapeptase appears to modulate molecules involved in both the immune and circulatory systems.¹²⁻¹⁶ Studies thus far suggest that serrapeptase is a promising, safe and useful supplement to help support the immune system and sinus health.

In one controlled and randomized open-label study, researchers observed the effects of 30 mg/day of serrapeptase on the sputum of 29 individuals. After 4 weeks, those taking serrapeptase had significantly less morning sputum and it was thinner and less elastic in nature compared to those in the control group. The serrapeptase group also had fewer neutrophils in their sputum, signifying a more balanced immune response.¹⁷

POTENCY

Doctor's Best discloses the potency details of every individual enzyme so you know exactly what you're getting. Enzyme strength is measured in terms of activity. Enzymes may be present, but unless they are functional, they will not do any good. Instead of weight (such as milligrams) the important measurement with enzymes is the activity and potency of the enzyme. A product label should list enzyme strength in standard activity units rather than by weight.

Some enzyme manufacturers conceal the actual amounts of ingredients in their formulations or list the potencies in misleading ways. For example, they list measurements based on weight without providing any information on enzyme activity. Each of the enzymes in Doctor's Best Proteolytic Enzymes is listed in terms of enzyme potency and activity using standard activity units.

SCIENTIFIC REFERENCES

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