

# SERRAPEPTASE PRO<sup>TM</sup>



ENZYME SCIENCE EXCEPTIONAL ENZYME FORMULAS

EXCEPTIONAL ENZYME FORMULAS

VEGAN & KOSHER FOOD SUPPLEMENT

#### SUPPLEMENT FACTS

Calcium (from Calcium Citrate)17.5 mgMagnesium (from Magnesium Citrate)0.1 mgProtease Thera-blend™80,000 HUTSerrapeptase100,000 SPU

#### **OTHER INGREDIENTS:**

100% Vegetarian capsule (cellulose, water)

#### **CONTAINS NO:**

Gluten, milk, casein, soy, egg, artificial colours or flavours

#### **RECOMMENDED DOSAGE:**

Take 1 capsule daily on an empty stomach, one hour before or two hours after a meal. More may be taken as needed. Consult your physician prior to use if you are pregnant or nursing, taking medications or have a health condition.

#### **OUR QUALITY**











### for the **SUPPORT OF SYSTEMIC STRESS**

with Potent Proteolytic Enzymes

Serrapeptase has a long history of use in traditional medicine throughout Asia and has been clinically studied in Europe and America for over 30 years for its therapeutic benefit.<sup>3</sup>

Proteolytic enzymes, such as pepsin, trypsin, and chymotrypsin, are naturally produced by the human body to carry out essential functions of breaking down proteins into smaller peptides for efficient digestion and nutrient absorption. Plant, fungal, and microbial proteolytic enzymes produced from pineapple, papaya, and species of non-pathogenic fungi and bacteria such as *Aspergillus* and *Serratia* also confer a benefit. Beyond digestion, research has demonstrated the effectiveness of supplemental proteolytic enzymes in other areas of health and wellness, including immune, cardiovascular, physiological, and systemic health.

#### **HISTORY OF SERRAPEPTASE ENZYME**

Serrapeptase, also commonly referred to as serratiopeptidase, serratia E-15 protease, serralysin, serratia peptidase, or serrapeptidase, is a proteolytic enzyme produced by the enterobacterium *Serratia marcescens* E-15.¹ Serrapeptase was initially isolated from the microorganism Serratia found naturally in the silkworm's intestine, *Bombyx mori L*.¹ This enzyme allows the developing moth to dissolve the very strong silk fibers that make up the cocoon enabling the moth to emerge. Serrapeptase works by only targeting non-living tissues of the cocoon, also known as "dead protein".² Serrapeptase is an extracellular metalloendopeptidase consisting of 470 amino acids and contains a zinc atom at the active site, which plays a vital role in its ability to cleave peptides.

#### SERRAPEPTASE MECHANISM OF ACTION

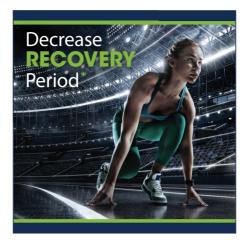
Taken on an empty stomach, Serrapeptase is absorbed through the intestine and transported directly into the bloodstream. The enzyme binds to alpha-2 macroglobulin in a 1:1 ratio, allowing it to retain enzymatic activity.<sup>2</sup> Once in the body, it works to optimise health by having an affinity for proteins that are dead, damaged, or do not belong.

#### **THERAPEUTIC BENEFITS**

Serrapeptase supplementation has demonstrated numerous therapeutic benefits through in vitro, in vivo, and clinical studies.<sup>4</sup>

## 3 BENEFITS IN 1







Systemic stress can result from the body's physiological response as a natural defense mechanism to protect against threats and other foreign invaders. As a result, the body can endure physical discomforts while the body is in a state of healing. Clinical studies have illustrated the therapeutic role of the serrapeptase enzyme in the body's repair system. <sup>5,6</sup> The proteolytic nature of this enzyme allows for the ability to dissolve dead and damaged tissue that is a by-product of the healing response. In addition to its proteolytic activity, Serrapeptase possesses both fibrinolytic and caseinolytic properties making this enzyme vital for circulatory and cardiovascular health.<sup>7</sup>

Serrapeptase assists in decreasing the physical severity of symptoms by having a direct effect on modifying cell-surface adhesion molecules effecting the movement of immune cells to tissues to encourage homeostasis. Science suggests that serrapeptase accelerates the healing process by decreasing the amount and viscosity of fluid in tissues. Decreasing the natural fluid viscosity in joints after physical impacts encourages a quicker recovery to regain mobility and comfort which is especially beneficial to those who live an active lifestyle.

As a supplementary to Serrapeptase, Protease Thera-blend™ is included and offers a blend of multiple fungal and microbial derived enzymes functional within a broad pH range to strengthen this formula's proteolytic power.

Mild digestive upset can be experienced with high doses of therapeutic proteases. Therefore, Enzyme Science has included the minerals Calcium and Magnesium for making this formula easier on the stomach.

# SERRAPEPTASE PRO™ ACHIEVING OPTIMAL HEALTH

In optimal health, the body undergoes physiological processes to maintain or restore homeostasis. Eating habits, exercise, weight management, sleep, and lifestyle choices all contribute to systemic stress which the body must react to. Assisting the body to naturally repair and recover accelerates homeostasis and encourages cardiovascular, circulatory, and immune health. Serrapeptase Pro™ provides potent proteolytic enzymes featuring Serrapeptase to improve circulation, cardiovascular health, immune health, and promote joint mobility.

#### REFERENCES

- <sup>1</sup> Vandana Gupte and Umesh Luthra. (2017). Journal of Pharmaceutical Analysis, 7, 203-207.
- <sup>2</sup> Selvarajan Ethiraj and Shreya Gopinath (2017). Frontiers of Biology in China, 12(5): 333-348.
- <sup>3</sup> Redfern, R. (2006). The Miracle Enzyme is Serrapeptase: The 2nd gift from silkworms. Naturally Healthy Publications.
- <sup>4</sup> Jadhav, S. B., et al. (2020). Biotechnology reports (Amsterdam, Netherlands), 28, e00544.
- <sup>5</sup> Chappi D, M., et al. (2015). Journal of clinical and experimental dentistry, 7(2), e197–e202.
- <sup>6</sup> Chopra, D. et al. (2009). *International journal of oral and maxillofacial surgery*, 38(4), 350–355.
- $^{7}$  Tiwari M. (2017). Asian journal of pharmaceutical sciences, 12(3), 209–215.
- <sup>8</sup> Bhagat, Shivani, et al. (2013). International Journal of Surgery, 11(3), 209-217.

Food supplements should not be used as a substitute for a varied and balanced diet and healthy lifestyle.