

## Proteo-Serrase 33 mg

### TECHNICAL SUMMARY

Proteo-Serrase features Serrazimes®, a proteolytic blend composed of enzymes derived from the edible fungi *Aspergillus oryzae* and *Aspergillus melleus*. Serrazimes® acts systemically to maintain healthy immune system responses through their ability to break down protein-based immune cell secretions and facilitate their elimination.\* Serrazimes® may thus promote vascular and respiratory health by supporting the body's own natural processes for both drainage and repair.\* The enzymatic activity of Serrazimes® is equivalent to that of serrapeptidase (a.k.a. serrapeptase) and is suitable for vegetarians.

**Enzyme Composition:** Serrazimes® is made of a blend of proteases shown to break down protein substrates in a manner similar to serrapeptidase. Serrazimes® is a one-to-one enzymatic substitution for serrapeptidase with similar *in vitro* proteolytic activity. This product is formulated to deliver the enzymatic activity of 20,000 serratiopeptidase units per capsule.

**Allergen and Additive Disclosure:** Not manufactured with wheat, soy, milk, egg, fish, shellfish, or tree nut ingredients. Produced in a GMP facility that processes other ingredients containing these allergens.

**Delivery Form:** Vegetable capsules

### ROLE AS NUTRIENT/FUNCTION

Serrazimes® is a proteolytic enzyme blend that was designed as an alternative to serrapeptidase, a trypsin family enzyme, and may be used for protein digestion within the digestive tract or as a systemic protease to support immune, cardiovascular, or musculoskeletal health.\*

### NATUROKINETICS®

**Liberation:** The disintegration of the vegetable capsule using a USP testing method of disintegration occurs between zero and 60 minutes.

**Absorption:** Laboratory experiments have suggested that serrapeptidase is at least partially absorbed intact in the digestive tract and can be detected in its active form in the blood and lymph after oral ingestion in animal models. In these experiments, peak plasma concentration was achieved between 30 minutes and 2 hours after ingestion, and serrapeptidase disappeared within 6 hours. These data need to be confirmed in humans.

**Distribution:** In animal models serrapeptidase was detected in blood and lymph.

**Metabolism:** There are no published data regarding the specific catabolism of Serrazimes®. However, enzymes are peptides and Serrazimes® are most likely metabolized as such in the body.

**Elimination:** There are no published data regarding the specific mode of elimination of Serrazimes®. However, enzymes are peptides, and Serrazimes® catabolites are most likely eliminated by the body the same way as other peptides.

## Supplement Facts

Serving Size 1 Veg Capsule

### Amount Per Serving

Serrazimes® (20,000 Serratiopeptidase Units)	33 mg**
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\*\* Daily Value not established.

Other ingredients: Rice Bran, Microcrystalline Cellulose and Hypromellose (cellulose capsule).

- **20,000 Units of Activity**
- **Supports Cardiovascular & Immune System Health\***

**SUGGESTED USAGE:** Take 1 capsule 1 to 2 times daily, between meals. Make sure to take on an empty stomach.

### CLINICAL VALIDATION

- In a meta-analysis of five clinical studies evaluating the clinical effect of serrapeptidase on discomfort after 3<sup>rd</sup> molar extraction, authors concluded that serrapeptidase at the daily doses of 15 to 60 mg in two to three divided doses, supports comfort in the immediate post-surgical period.

### SAFETY INFORMATION

**Tolerability:** Supplementation with proteolytic enzymes from *Aspergillus* is well tolerated when used up to 100 mg/d.

**Caution:** Not for use during pregnancy or while breastfeeding. Caution and physician's supervision should be exercised when taken with anti-coagulants or in individuals prone to excessive bleeding. Discontinue 2 weeks prior to a scheduled surgical procedure.

### INTERACTIONS

**Drug Interactions:** Taking Proteo-Serrase with drugs that have antiplatelet or anticoagulant effects might increase the risk of bruising and bleeding. Some of these drugs include aspirin, clopidogrel (Plavix®), NSAIDs, and others. The use of Serrazimes® may affect the absorption and tissue distribution of antibiotics when taken together.

**Supplement Interactions:** Taking Proteo-Serrase along with other supplements that might have antiplatelet or anticoagulant effects may increase the risk of bruising and bleeding. Some of the supplements include dong quai, clove, red sage, garlic, ginger, ginkgo, fish oil, turmeric, vitamin E, vitamin K, willow bark, and others.

**Interaction with Lab Tests:** Prothrombin time and INR are recommended to be monitored closely in patients taking Serrazimes® and warfarin.

### STORAGE

Store in cool, dry, and dark environment in original sealed container. Protect from extended exposure to moisture, heat, and direct light.