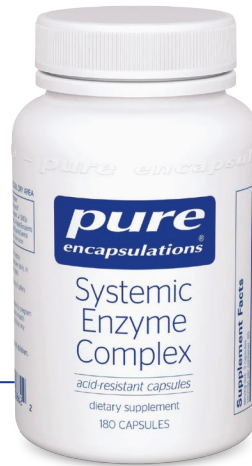




# Systemic Enzyme Complex

Introduced 2005



## What Is It?

A synergistic enzyme formula that provides support for muscle, joint and overall tissue health. The proteolytic enzymes included in this formula support physiological homeostasis of musculoskeletal and other tissues for wide range systemic support. This formula is now offered in acid-resistant capsules with pH targeted release for maximal enzyme delivery to the small intestine.\*

## Uses For Systemic Enzyme Complex

**Promotes Overall Tissue Health and Immune Support:** Enzymes included in this formula have the potential to influence bradykinin formation, modulate the arachidonic cascade and prostaglandin E2 production, and provide fibrinolytic support. All of these actions contribute to the potential of proteolytic enzymes to maintain healthy immune mediator activity at the cellular level and overall tissue health.\*

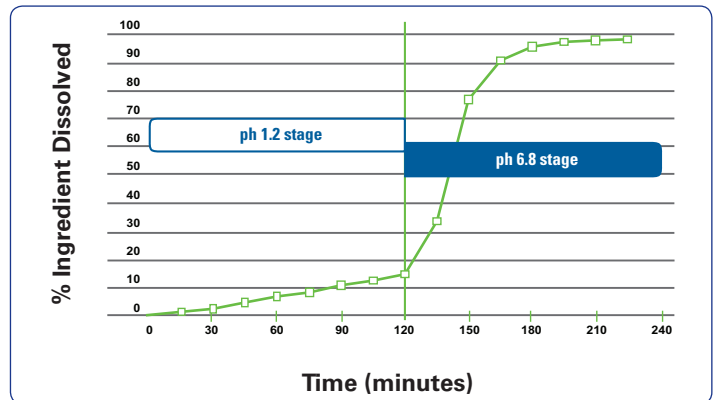
**Muscle Support:** Proteolytic enzymes have also been found to support muscle comfort and recovery of contractile function, as indicated in one placebo controlled human study involving athletes. Animal studies have indicated that some proteolytic enzymes may result in enhanced muscle recovery.\*

**Joint Support:** Proteolytic enzymes support joint and cartilage comfort. Rutin, a flavonol, was shown in several animal studies to promote joint health better than other flavonols and is included in this formula to complement both its musculoskeletal and tissue support potential. *Boswellia serrata* is an Ayurvedic herb that has a long history of use for connective tissue and joint support. Boswellic acids, the terpenoid constituents of boswellia, maintain healthy 5-lipoxygenase enzyme activity and healthy leukotriene metabolism. In addition, boswellic acids may maintain healthy human leukocyte elastase enzyme activity, preserving the integrity of healthy connective tissue. Serrazimes<sup>®</sup>, a serrapeptidase-comparable enzyme blend, helps lessen minor pain and maintain a healthy cytokine response.\*

## Special Features

Systemic Enzyme Complex is offered in acid-resistant capsules with pH targeted release. These capsules are designed to resist disintegration in an acidic environment (i.e. stomach) and dissolve in more alkaline environments (i.e. small and large intestine). This technology helps to protect the enzymes from stomach acid.

Disintegration in Simulated Gastric and Simulated Intestinal Fluids



Percentage of ingredient released in simulated gastric fluids and intestinal fluids.†

After two hours in pH 1.2 simulated gastric fluids, less than 20% of capsule contents were released. After 45 minutes in pH 6.8 simulated intestinal fluids, more than 80% of capsule contents had dissolved.

†This test was performed under a specific protocol which is available upon request.

## What Is The Source?

Pancreatin and trypsin are porcine derived and lactose-free. Chymotrypsin is bovine derived and lactose-free. Protease 6.0 and Serrazimes<sup>®</sup> are derived from the digestion of a nutrient source by *Aspergillus oryzae* and *Aspergillus melleus*. Bromelain and papain are derived from pineapple and papaya, respectively. Rutin is sourced from the Fava danta tree found in Brazil. *Boswellia serrata* is standardized to contain 70% boswellic acids. Vitamin C (ascorbyl palmitate) is derived from corn dextrose fermentation and palm oil. Gellan gum is derived from *Pseudomonas elodea*.

(continued)

## Recommendations

Pure Encapsulations recommends 3-6 capsules daily, in divided doses. For systemic support, this formulation should be taken between meals.


## Are There Any Potential Side Effects Or Precautions?

Not to be taken by pregnant or lactating women. Individuals with an allergy to pineapple or papaya should not take this product. While there is no fungi present in the final product, individuals with candida may be sensitive to this product. Rare side effects of boswellia include diarrhea, skin rash, acid reflux and nausea and may be contraindicated in those with pre-existing gastritis or gastro-esophageal reflux disease (GERD).

## Are There Any Potential Drug Interactions?

Studies suggest boswellia moderates 5-lipoxygenase and therefore may interact with leukotriene inhibitors.

## Systemic Enzyme Complex

|   |   |
|---|---|
| three vegetarian capsules contain  1 |   |
| pancreatin (from porcine) (lactose-free).....   | 176 mg<br>(50,000 USP units protease)                   |
| protease 6.0 (60,000 HUT).....  | 120 mg  |
| Serrazimes® (protease blend) (10,000 U).....  | 17 mg   |
| bromelain (from pineapple stem) (2,400 gdu/g).....  | 120 mg  |
| papain (from papaya fruit) (800 TGU/mg).....  | 120 mg  |
| rutin.....  | 100 mg  |
| trypsin (from porcine) (1:150) (11,250 USP units).....  | 75 mg   |
| chymotrypsin (from bovine) (2,550 USP units).....   | 3 mg  |
| Indian frankincense (Boswellia serrata) extract (gum resin)...  | 250 mg<br>(standardized to contain 70% boswellic acids) |
| other ingredients: ascorbyl palmitate, vegetarian capsule (cellulose, gellan gum, water)                              |   |
| 3-6 capsules daily, in divided doses, between meals.  |   |

Serrazimes® is a registered trademark of National Enzyme Company.