Product Rationale: ***PROTEASE***

TRANSFORMATION
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Consider the following review of clinical research results on proteolytic enzymes and their ability to promote promote circulation, a strong healthy immune system, anti-inflammation, and timely detoxification.

Assuring optimal protein digestion and proper blood flow is necessary for effective nutrient delivery, a healthy immune response, and the body's natural detoxification processes. Proteolytic enzymes taken orally under certain conditions have been shown to be absorbed in substantial quantities into the blood[1,2]. Once in the blood circulation, the enzymes in this blend bind to serum proteins (particularly alpha 2-macroglobulin (α2M)) and impart immunomodulatory benefits[4]. One of the most well-established functions that is served by oral proteases is the maintenance of normal blood flow. This is accomplished by breaking down blood clots (fibrinolysis)[3] and platelet aggregations within blood vessels and breaking down excess extra-vascular plasma proteins, as in edema. Protease will also enhance the hydrolysis of food proteins for the enhanced bio-availability of amino acids.

FORMULA RATIONALE

Transformation's Professional Protocol™ Protease provides vital systemic benefits including the support of adequate blood rheology for the optimum flow of immune cells and their meditating molecules, hormones, blood cells, and other vital molecules and cells. The superb absorption ability and the high functionality of this product is certain to enhance and optimize overall protein hydrolysis. These benefits, in turn, facilitate and support a wide array of metabolic processes.

Bromelain, an important addition to the Tzyme™ Protease Blend, is a protease derived from the pineapple plant. It has been used for many years as a digestive aid, an anti-inflammatory, and a burn debridement agent. Its actions help to prevent swelling/edema, to promote smooth muscle relaxation, to inhibit platelet aggregation, and to enhance antibiotic absorption. Bromelain is also used in cancer treatment, ulcer prevention, sinusitis relief, appetite inhibition, and in the shortening of labor[10,11].

OTHER INGREDIENTS

This product is encapsulated in a vegetarian capsule. Protease is dairy, gluten, and soy free. No fillers are used in this product.

COMPONENT BENEFITS

Our strongest systemic protease formulation includes over 355,000 HUT units of protease activity for supporting healthy circulation (blood and lymph) and optimal immune health. Supporting circulation with TPP Protease encourages delivery of oxygen and nutrients to the cell for health and vitality, removal of metabolic wastes from the cell, and transport of immune cells throughout the body to help maintain a healthy internal environment.

Each one-capsule serving of TPP Protease is formulated to include the following.

Tzyme™ Protease Blend 492 mg
(355,020 HUT + 19 SAPU) (600,000 PU)

Peptidases
Bromelain

Other Ingredients:

Hypromellose
Water
Calcium Citrate

SUMMARY

Transformation's Professional Protocol™ Protease is a proprietary blend of highly active proteolytic enzymes with a wide range of pH stability. This proprietary blend of highly active, GI stable proteolytic enzymes has been combined to promote circulation, a strong healthy immune system, anti-inflammation, and timely detoxification.

CLINICAL APPLICATIONS

- Cancer
- Arthritis
- Cardiovascular Disease
- Chronic Fatigue Syndrome
- Fibromyalgia
- Bacterial, Viral, Fungal Infections
- Hepatitis
- Kidney Disorders, Renal Insufficiency
- Eczema, Psoriasis
- Asthma, Emphysema
- All Hormone Imbalances
- Auto-Immune Disorders
- Autism
- Diabetes
- Muscle Strains, Soreness, Injuries, and Surgeries

RECOMMENDED USAGE

This product is the "therapeutic" strength proteolytic blend and should be the first choice when a patient has been diagnosed with a condition.

- Take 1 capsule twice daily (am/pm) on an empty stomach.
- For general therapy, take 2 capsules three times daily between meals (approximately 1 hour before or 2 hours after meals).
- For a therapeutic dose, takes 2-3 capsules four to five times daily, or every 3 hours. (If "between meals" becomes difficult, 30-60 minutes before or after meals is also acceptable.)
- It is better to take small doses of protease frequently throughout the day rather than large doses once or twice a day. Protease has a half-life of approximately 3-4 hours, so the goal is to keep the protease activity constant in the blood stream for therapeutic benefits.
- May be taken with food if unable to tolerate between meals.
- 1 capsule may also be taken with meals to enhance the digestion of proteins (i.e., diabetes, heartburn, acid reflux, gout, autism, high protein diet)
- Take each dosage with at least 8 oz. of liquid.
- If there is difficulty swallowing capsules, remove contents from capsule, mix with a small amount of tepid water, and ingest immediately.
- Topical application: open capsule and make a paste with a small amount of water, then apply to insect bite, fungal rash, mouth sores, inflamed gums, etc.

INDICATIONS

Impaired Kidney Function

In Glomerulonephritis disease, there is a buildup of protein in the basement membrane of the glomeruli of the kidneys. Fluids must pass through this basement membrane during the initial phase of blood filtration by the kidneys. Recent research using an animal model of this disease "lends further support to the concept that enzymes capable of degrading immune complexes in situ can ameliorate glomerulonephritis."[18]

Heavy Metal Toxicity

Heavy metals such as lead (Pb) and mercury (Hg) exert their poisoning effect by binding to ionizable or sulfhydryl groups of proteins. These groups include vital enzymes. Once these metals bind to an essential functional protein, such as an enzyme, they denature and/or inhibit it. This interaction of heavy metals to proteins can lead to degenerative disease, nerve damage, and even death.

When taken on an empty stomach, it should be noted that protease is readily taken up into the mucosa cells of the intestine and then passed into blood circulation. Clinical observations have noted that, upon high intake of Protease, heavy metal concentrations have been significantly decreased in the blood.

Cancer

Proteolytic enzymes administered orally improved the survival time and the hematological parameters of spontaneous lymphoblastic leukemia in rats and also improved the metastasis and survival time of mice with Lewis lung carcinoma[13].

Several hypotheses have been put forth as to the mechanisms by which proteolytic enzymes modulate the immune system to control and eliminate tumors. Some studies indicated that proteolytic enzymes selectively remove some adhesion molecules, such as CD4, CD44, B7-1, ICAM-1, B7-2, CD45RA, CD6, CD7, E2/MIC2, and Leu81/LAM 1 from cell surfaces[14,15,16,17]. According to Hale, et al., the removal of these surface molecules has markedly enhanced CD2-mediated T-cell activity[17].

Some studies have implied that, by removing the glycoprotein CD44, some proteases help control the tumor growth of certain types of cells. The selective

removal of some mediator proteins and the regulation of cytokines[5,6,8,9] constitute some factors by which proteolytic enzymes are thought to modulate the immune system and act as biological response modifiers.

CONTRAINDICATIONS

Patients on prescription blood thinning drugs should take protease formulas 3-4 hours away from Rx dose.

May cause discomfort for individuals with stomach ulcers as protease will debride necrotic tissue and promote healing.

SAFETY / QUALITY ASSURANCE

All Transformation™ formulas are carefully prepared to assure maximum quality and nutritional effectiveness.

MICROBIOLOGICAL EVALUATION

This product was tested and found to be NSF/ANSI compliant and absent of any traces of *E.coli*, *salmonella*, and *S.aureus*.

PRODUCT SPECIFICATIONS

Protease is available in bottles of 60 and 120 capsules.

Does not contain any dairy, gluten, soy, artificial colors, flavors, or preservatives.

Store in a cool, dry place. Keep out of reach of children.

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Transformation Enzyme Corporation
2900 Wilcrest, Suite 220
Houston, TX 77042
1-800-777-1474
TransformationEnzymes.com
moreinfo@tecenzymes.com

*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.