

**Plant based** enzymes are grown from *Aspergillus*. *Aspergillus* is a fungus grown in a laboratory setting on plants such as soy and barley. This fungus is a non-pathogenic pharmaceutical *Aspergillus* species and is free of mycelium contamination. They are called plant based, microbial and fungal. Of all the choices, plant based enzymes are the most active.\* This means they can break down more fat, protein and carbohydrates in the broadest pH range than any other source.\* In their manufacture, removal of all the *Aspergillus* leaves only the enzymes. *Aspergillus* enzymes have a strong record of safe use in the food industry, and they are considered food by the FDA. These enzymes can be taken with meals to aid in the digestion of all foods, or they may also be taken following or between meals to meet needs beyond digestion. Plant enzymes are not disposed of as if the body has no need for them.\* They exit only after there is no more activity left in them to do their work.\* Since they are a component of food, which is natural to the body, and since they are proven to be catalysts, plant enzymes are in a completely different arena from other enzyme supplements.\*

The following is a summary of the plant and plant-based enzymes included in Theramedix products.

#### **Alpha-Galactosidase:**

- Breaks down carbohydrates, such as raffinose, and stachyose.\*
- Especially helpful with the digestion of raw vegetables and beans.\*
- Measured in GALU (Galactosidase Units).

#### **Amylase (Carbohydrase):**

- Breaks down carbohydrates such as starch and glycogen, and polysaccharides into smaller units.\*
- Theramedix uses no less than two types of Amylase in every formula.
- Measured in SKB and DU (Dextrinizing Units).

#### **Betaglucanase:**

- Breaks down beta D-glucan components.\*
- Betaglucanase helps break down beta-linked glucose bonds often associated with grains, such as barley, oats and wheat.\*
- Measured in BGU (Betaglucanase Units)

#### **Bromelain:**

- Breaks down protein.\*
- Beneficial for reducing normal inflammation in the body.\*
- Measured in GDU (Gelatin Digesting Units and FCCPU. 2400 GDU = 50,000,000 FCCPU).

#### **Catalase:**

- Breaks hydrogen peroxide down into water and oxygen.\*
- One of the most potent antioxidants.\*
- Measured in Baker Units.

### **Cellulase:**

- Breaks down cellulose and chitin (chitin is cellulose like fiber found in the cell wall of Candida).\*
- It helps free nutrients in both fruits and vegetables.\*
- Theramedix uses no less than two types of cellulase in every formula.
- Measured in CU (Cellulase Units).

### **Diastase (See Maltase)**

### **Glucoamylase:**

- Breaks down carbohydrates, specifically polysaccharides into glucose.\*
- Measured in AG (Amyloglucosidase Units).\*

### **Hemicellulase:**

- Breaks down carbohydrates.\*
- Especially helpful with polysaccharides found in plant foods.\*
- Measured in HCU (Hemicellulase Units).

### **Invertase (Sucrase):**

- Breaks down carbohydrates, especially sucrose.\*
- Measured in INVU (Invertase Activity Units).

### **Lactase:**

- Breaks down lactose (milk sugar).\*
- Used for lactose intolerance.\*
- Measured in ALU (Lactase Units).

### **Lipase:**

- Breaks down lipids and improves fat utilization.\*
- Theramedix uses no less than two lipases in every formula.\*
- Supports gallbladder function.\*
- Measured in FCCFIP and LU (Lipase Units).

### **Maltase (Diastase, Malt Diastase):**

- Breaks down carbohydrates, malt and grain sugars.\*
- Breaks down complex and simple sugars.\*
- Measured in DP (Degrees of Diastatic Power).

### **Nattokinase:**

- Breaks down inappropriate cross linked protein.\*
- For promoting cardiovascular health, inhibits ACE, reduces C-Reactive Protein.\*

- Measured in FU (Fibrinolytic Units).

#### **Papain:**

- Breaks down protein.\*
- For reducing normal inflammation in the body.\*
- Measured in FCCPU (Papain Units).

#### **Pectinase:**

- Breaks down carbohydrates, such as pectin found in many fruits and vegetables.\*
- Measured in endo-Pgu. (Pectinase units)

#### **Protease Thera-blend™:**

- Breaks down protein.\*
- Bonds with alpha 2-macroglobulin to support immune function when taken on an empty stomach.\*
- Theramedix uses three types of protease in every formula.
- Measured in HUT (Hemoglobin Units in a Tyrosine Base).

#### **Phytase:**

- Breaks down carbohydrates.\*
- Especially helpful in breaking down phytic acid found in the leaves of plants.\*
- Helps with mineral absorption.\*
- Measured in endo-Pgu (Phytase Units).

#### **Sucrase (See Invertase)**

#### **Xylanase:**

- A type of Hemmicellulase found in grains.
- Breaks down soluble fiber.
- Measured in XU (Xylanase Units).

#### **A Summary of Enzyme Attributes**

- ENZYMES are needed for every chemical reaction that takes place in the body.\*
- ENZYMES are catalysts.\*
- ENZYMES are connected to every working organ in our body and run our life's processes.\*
- ENZYMES are needed by vitamins and minerals to accomplish their delivery within the body.\*
- ENZYMES are required by all food for digestion.\*
- ENZYMES are destroyed by cooking and processing food.\*

- ENZYMES can prevent partially digested proteins from putrefying, carbohydrates from fermenting, and fats from turning rancid within your system.\*
- ENZYMES from a plant based source become active as soon as they enter the body.\*
- ENZYMES from an animal source are only active within the small intestine in an alkaline setting of 8.0 pH.