Lumbrokinase

Circulatory System Support*

Since 1992, lumbrokinase derived from earthworms has been extensively studied and used in China. Research has shown lumbrokinase to support healthy coagulation of blood within normal levels and enhance fibrinolytic activity, i.e. similar to nattokinase.*

The lumbrokinase group of proteolytic enzymes, extracted from *Lumbricus rubellus*, includes plasminogen activator and plasmin. The plasminogen activator (e-PA) in lumbrokinase is similar to tissue plasminogen activator (t-PA) from other sources, which makes it possible to show the thrombolytic activity only in the presence of fibrin.* Therefore, lumbrokinase has the advantage of not causing excessive bleeding.*

Key Features

- Supports healthy coagulation of blood within normal levels*
- May enhance fibrinolytic activity, similar to nattokinase*
- Supports healthy blood viscosity within normal levels*

Item #74870
30 delayed release vegicaps

Item #76140
60 delayed release vegicaps

Lumbrokinase

Evidence of the human use of earthworms goes back many centuries. According to the ancient Chinese medical publication Ben Cao Gang Ma (Compendium of Materia Medica), earthworm (*Lumbricus rubellus*) was said to unblock the body's meridians and channels, and was used to support blood circulation.* In 1883, in a book discussing the action of worms, Charles Darwin observed that earthworm digestive fluids can dissolve fibrin. In the 1980s, Japanese researchers extracted a fibrin dissolving enzyme from *Lumbricus rubellus*, and found that it consisted of six proteolytic enzymes, collectively named lumbrokinase.

Lumbrokinase's mechanisms of action include participation in the activation of plasminogen, and direct activity on fibrin itself.* Lumbrokinase primarily proteolyzes fibrinogen and fibrin, hardly hydrolyzing other plasma proteins including plasminogen and albumin.* The enzymes in Lumbrokinase have very strong fibrinolytic activity, are stable in a wide pH range, and show great stability against thermal inactivation and degradation.* They are alkaline trypsin-like proteases that are greater than trypsins in their stability and tolerance to organic solvents.* The activity of Lumbrokinase is much higher than most traditional Chinese products that are available in the United States.* Significant amounts of Lumbrokinase have been shown to be transported through the intestinal epithelium, even in healthy subjects.*
Four phases of clinical studies have been done on Lumbrokinase at the Beijing Xuanwu Hospital (the top hospital in nerve & internal medicine in China). Lumbrokinase has been widely used in over 100 hospitals in Beijing since 1995.* In Jakarta, Lumbrokinase has been used in thousands of hospitals and stores, in more than 20 provinces and cities, as well as in Hong Kong, Taiwan, Southeast Asia, and Europe.*

Lumbrokinase is recognized by the Ministry of Public Health in China. Long term animal tests have shown that lumbrokinase is non-toxic and free of side effects.* Over 60,000 people have received Lumbrokinase without any major side effects.* Product of China.

Note: Recently we took steps to improve the delivery of our Lumbrokinase (as of May, 2016). The previous version's 'enteric-coated' capsules utilized a phthalate-coating to create a form of acid-resistance. We now use acid resistant, delayed release capsules that are free of phthalate and other coatings. Instead, gellum gum serves to buffer the enzymes as they pass through the stomach acid.

The potency of the enzymes and the bottle sizes have not changed. The lumbrokinase is slightly more concentrated, so each serving of 600,000 IU require 32 mg instead of 40 mg (by weight). The potency of the lumbrokinase (IU activity) is what matters, and is unchanged.

Supplement Facts

Serving Size	2 Capsules
Servings Per Container	15 or 30
Amount Per Serving	**% Daily Value**
Lumbrokinase (600,000 IU)	32 mg †

† Daily Value not established.

Other ingredients: Rice dextrin, medium chain triglycerides, hydroxypropyl methylcellulose, water, gellan gum, microcrystalline cellulose.

Suggested Use: As a dietary supplement, 1 or 2 capsules in the morning, 1 or 2 capsules in the afternoon, and 2 capsules at bedtime, or as directed by a healthcare practitioner. Take with 8-10 oz of water, with or without food. Use under medical supervision if taking anticoagulant drugs. Contraindicated in any conditions associated with bleeding.

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