

# Humic Acid

## *Membrane-Active*

**Humic acids** are the organic components of soil, peats, brown coals, shales, and lake sediments, formed from decomposed plant material. They are complex, long-chain molecules, varying in molecular weight from 5,000 to 50,000 daltons. Humic substances are the most abundant source of non-living organic material found in nature.

The humic acid utilized in Humic Acid Membrane-Active undergoes a specialized proprietary extract and purification process, and has an average size of about 50,000 Daltons. These large molecules are very flexible and have enhanced conformation and attachment capacities.\* This humic acid can bind to cell surfaces with no adverse effects on the cell itself or on cell growth, and can stimulate normal, healthy resistance and immune response.\*



#76600  
60 vegetarian capsules

### Key Features

- Provides antioxidant activity and supports normal, healthy immune response.\*
- Helps neutralize and remove toxins.\*
- Supports a general sense of well-being.\*

As a group, humic acids present a kaleidoscope of soluble carbon. Humic substances are formed under many different environmental conditions and from a variety of starting materials, and humates from different regions of the earth contain various amounts and types of organic groups and configurations. Humic acid characteristics are also determined by how the deposit formed during the process of humification. The quality of product material for health or agricultural use is also affected by how the humic acid is extracted and purified.

In the soil, humic acids increase the permeability of plant membranes and enhance uptake of minerals and other nutrients, provide pH buffering, and help degrade and transport hydrophobic organic chemicals. They improve soil fertility, support the growth of helpful probiotic microbes, and enhance the sprouting of seeds and the growth and development of plants. They also impart the dark brown or black color to surface soils. Biologically active humic substances provide a biochemical bridge between minerals and living plant matter.

Clays, soils, and other earth substances have been utilized for health in many cultures for thousands of years. A practice common world-wide in folk medicine is to pack a deep scratch or wound with mud from special places. In the Chinese Materia Medica Pharmacological Compendium, Li Shi Zhen described the use of many natural humic-containing substances, such as various forms of clay and mud. In modern times, China has taken the lead in researching humic substances, and medical schools and hospitals have published hundreds of research papers.\* The Indian Ayurvedic tradition utilizes an earth substance, the prized shilajit, also known as "asphaltum". Humic Acid Membrane-Active could be considered a highly refined and purified form of shilajit.

Humic acid contains a wide range of essential minerals, and it can increase cell wall permeability, facilitating transport of minerals to the cells.\* Humic acid has antioxidant activity, helps neutralize and remove toxins, and supports a general sense of well-being.\*

In animal trials, humic acid exhibited no detectable toxic or other side effects, even at levels 50-100 times higher than ordinary human intake. In 200 mice injected with 1000 mg/kg (the limit of what could be injected), there were no adverse effects. This equates to a dose for an average human of 70,000 mg / day. There are no known drug contraindications.

#### Supplement Facts

Serving Size	2 Capsules
Servings Per Container	30
Amount Per Serving	% Daily Value
Humic Acid	750 mg *

\* Daily Value not established.

Other ingredients: Hydroxypropyl methylcellulose, microcrystalline cellulose, L-leucine.

**Suggested Use:** As a dietary supplement, 1 or 2 capsules two times daily, or as directed by a healthcare practitioner. Pregnant or nursing women, or children under the age of 4 should use only under the guidance of a healthcare practitioner. Children 4-12 years old take half an adult dose.