

# SMPL72™: Benefit areas supported by published studies

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# SMPL72™: Benefit Areas Supported by Published Studies

BENEFIT AREA	DESCRIPTION
Optimizes Nutrient Absorption:	Shuttles more sugars and carbohydrates to the muscle, rather than into fat storage. Carbohydrates and glucose absorption are downregulated (receptor sites reduced) in the stomach/intestine and upregulated in the muscle tissue, allowing for more nutrients available for use. Adiponectin (regulates glucose levels as well as fatty acid breakdown) is increased [1-6]
Powerful Antioxidant Capacity:	Prevents tissue damage by its ROS scavenging capacity 'reactive oxygen species' and mimics SOD 'super oxide dismutase' properties [7-12].
Binds Toxic Heavy Metals:	Chelates metals for elimination via bowels/urine, reducing toxic load on the cells [13-19]
Enhanced Mitochondrial Biogenesis and Stamina:	Mitochondria multiply producing more ATP which enhances more efficient cell respiratory function [11, 20-24].
Sugar Spikes Lowered:	Maintains Blood Glucose Levels by regulating glucose absorption, sugar spikes are lowered, regulates the liver decreasing the breakdown of glycogen to glucose and prevents insulin resistance [25-29].
Restricts Fat Accumulation: Regulates Cholesterol:	By down regulating the glucose receptor sites in the stomach, more glucose is shuttled into the muscle for energy use [28, 30-35].
Regulates Cholesterol:	Inhibits pancreatic cholesterol esterase resulting in cholesterol lowering activity. Reduces the solubility of cholesterol aggregates that form plaque [1, 29, 36-39].
Anti-Inflammatory:	Prevents the production of inflammatory molecules such as cytokines; also offsets allergic-induced inflammation [40-46].
Immune System Regulator:	Regulates the immune response from becoming over-active [28, 44, 45, 47].
Electrolyte Hydration:	Important for cell integrity – providing the cells with enough water, ions, and minerals; helps prevent dehydration and electrolyte depletion [48-52].
Cardiovascular Support & Maintains Blood Pressure:	At the molecular level, the effects of cardiovascular protection are mediated through interaction with nitric oxide metabolism and inhibition of angiotensin. Polyphenols improve blood vessel endothelial function, increasing vasodilation (lowering blood pressure- anti-hypertension) protecting against developing chronic cardiovascular conditions [39, 53-56].
Improves Oxygen Transport: Better Gut Biome:	Antioxidants protect the mitochondria and bodily tissues from oxidative injury by free radical production enhancing mitochondrial biogenesis and optimizing respiratory function [20, 23, 39, 57].
Better Gut Biome:	Polyphenols are demonstrated to increase the growth of beneficial bacteria in the intestinal microbiome. Oxidative stress disrupts the intestinal epithelial barrier and increases permeability. Persistent oxidative stress can damage and alter the microbe balance, promoting disease. Antioxidants, such as those found in MLG-50, have been shown effective in restoring balance, attenuating intestinal damages and maintaining GI tract health [42, 58-62].
Regulates Energy Homeostasis:	Polyphenols regulate glucose uptake in muscle and ATP production in the mitochondria, maintaining optimal nutrient transport and energy levels throughout the body [2, 23, 34, 55, 57, 63, 64].
Neurogenerative Health:	Polyphenols play an important role in the protection of neuron loss by preventing inflammation and mitochondrial oxidative damage. Polyphenols have also been shown to have beneficial effects on age-related cognitive and motor deficits, memory loss, mitochondrial oxidative stress, restoration of mitochondrial membrane potential, mitochondrial function and ATP synthesis [11, 22, 65-69].

### **Product Details, Features and Selling Points**

#### **Origin and Classification**

SMPL72<sup>™</sup> provides micronutrients to the body. Fulvic acid is a class of polyphenols which include flavonoids that provide enormous health benefits. All constituents in SMPL72<sup>™</sup> is also found in fruits, vegetables, herbs, nuts and seeds. It does not treat nor prevent disease. It is a strong component of a healthy lifestyle that includes smart eating, exercise, supplementation and community. Fulvic acids, flavonoids, trace minerals and so forth are ubiquitous in our food supply to varying degrees. The trace minerals found in SMPL72<sup>™</sup> have been depleted from our soils, thus lowering the levels in our food supply. These microminerals have substantial cumulative health benefits.

The addition of a small amount of SMPL72<sup>™™</sup> to nutraceutical, nootropic, and sports enhancement products, will increase the potential effectiveness of that product. It is considered a new dietary ingredient but is exempt from notification and is safe for human consumption when used as directed. A typical dose is 100 mg per day.

SMPL International's deposit is a stratum of marine nutrients and terrestrial plant matter that formed over 34 million years ago, protected from weathering by a layer of iron ore. Our unique extraction method begins with a two-year curing process followed by a proprietary reverse osmosis water extraction method resulting in a 100% soluble, highly concentrated liquid.

Our deposit consists of Nature's most complex substance containing the remnants of prehistoric life. These include:

Minerals, trace minerals, trace elements, vitamins, amino acids, organic acids, fulvic and humic acid, phytochemicals, natural sterols, hormones, fatty acids, polyphenols, and ketones, including flavonoids, flavones, flavins, catechins, tannins, quinones, isoflavones, and tocopherols, which possess the benefits listed above.

#### **Features:**

- Concentrated Product
- Liquid low pH
- Highest Fulvic Acid Content
- 100% soluble
- Sodium/Potassium electrolyte balanced
- 70+ trace minerals

- 70+ electrolytes
- 18 antioxidants
- · Pleasant flavor and aroma profile
- Dietary Supplement cGMP certificate by UL

#### **Questions and for Additional Information Contact:**

Maarten Bennis, Founder/CEO

maarten@smpl.international

Lidwien Jansen Co-founder/CCO

lidwien@smpl.international

+31 23 5259494

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