

# ProEnt2 Plus™

Plant Extract Combination with Sweet Wormwood, Oregano & Rosemary

Provides potent antimicrobial herbs and phytonutrients to encourage the presence of a balanced and healthy gut microbiome\*

Plants were the original source of all medicines available to humans. ProEnt2 Plus™ is a proprietary plant extract blend that provides a wide variety of powerful herbal extracts and phytochemicals to support reduced growth of pathogenic and opportunistic microbes while soothing gut discomfort.\*

# **Supplementation with ProEnt2 Plus:**

- Supports reduced growth of harmful opportunistic and pathogenic organisms\*
- Supports normal gut flora colonization\*
- Supports healthy liver function\*
- Provides valuable antioxidants\*
- Promotes healthy gut function\*
- May contribute to a healthy lipid profile\*

# InterPlexus\* ProEnt2 Plus\* Supports Normal Gastrointestinal Function\* 90 Vegetarian Capsules Dietary Supplement Vegetariant













### What the research and clinical use shows:

### Sweet Wormwood (Artemisia annua)

Sweet wormwood, a Chinese herb, has anti-inflammatory, anti-parasitic, and anti-cancer properties. The herb's main active constituent, artemisinin, has been found to be effective against parasites including malaria. Artimisinin is also a

promising anti-viral with activity against hepatitis B virus (HBV) and hepatitis C virus (HCV).<sup>2</sup> It has also been shown to be effective against the cancer-causing effects of human papillomavirus (HPV) on cells in-vitro.<sup>3</sup> *Artemisia annua* essential oil is a strong tool against pathogenic microorganisms – including several species of bacteria and yeast.<sup>4</sup>

\*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.

For educational purposes only. Consult your physician for any health concerns.

# ProEnt2 Plus™

### Milk Thistle (Silybum marianum) Seed

Milk thistle is an anti-inflammatory, hepatoprotective, and antioxidant herb. The first recorded use of milk thistle dates back to ancient Egypt, and it was revered, even then, for its healing properties. Silymarin is the collective name for a group of active constituents called flavonolignans and is the most studied chemical component in milk thistle extract. Silybin (silibinin) is one of the flavonoid components of silymarin and constitutes 70% to 80% of the standardized extract. Silybin has been found to be helpful in many conditions including rheumatoid arthritis, cancers, liver disease, neurological diseases, and other chronic conditions. In the gut, silybin protects tissue through its antioxidant and anti-inflammatory properties. These functions would be particularly helpful in cases where GI infection has caused tissue damage.

### Oregano (Origanum vulgare) Leaf

Oregano is an herb with powerful antimicrobial, anti-fungal, antioxidant, and anti-cancer properties. Known mostly as a flavorful cooking herb, oregano owes much of its medicinal properties to the polyphenols carvacrol and thymol.<sup>6</sup> Carvacrol and thymol have been shown to have activity against pathogenic and opportunistic bacteria, including *Pseudomonas aeruginosa, Staphylococcus aureus*, and *Clostridium perfringens.*<sup>7,8</sup> Oregano's antibacterial activity appears to be due to carvacrol and thymol's interference with pH, bacterial membrane permeability, and the formation of bacterial flagella.<sup>6</sup> This herb has also be shown to protect cells from damage caused by hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>), a standard model used to simulate oxidative stress in the body.<sup>6</sup> Oregano essential oil has also shown promise in fighting *Candida albicans.*<sup>9</sup> Oregano has demonstrated anti-cancer effects in several studies against multiple cancer types including: colon cancer<sup>10</sup>, non-small cell lung cancer<sup>11</sup>, and osteosarcoma.<sup>12</sup> In one small clinical trial, emulsified oregano oil showed activity against *Blastocystis hominis*.<sup>13</sup>

### Rosemary (Rosmarinus officinalis) Leaf

Rosemary is an anti-inflammatory, antioxidant, anti-cancer, and metabolically protective herb. Native to the Mediterranean, rosemary exhibits many healing properties. The polyphenols carnosic acid and rosmarinic acid are the most studied constituents found in rosemary. These constituents have shown promise in killing multiple types of cancer, including breast and colon cancers, in-vitro.<sup>14</sup> Additionally, carnosic and rosmarinic acids have shown anti-inflammatory and anti-oxidant effects.<sup>15</sup> Rosemary has been shown to improve lab indices in metabolic syndrome including increasing insulin sensitivity and improving lipid profiles.<sup>16</sup>

### Ginger (Zingiber officinale) Root

Ginger root is a potent herb known for its anti-inflammatory, anti-parasitic, and digestion-regulating effects. An in vitro study demonstrated that ginger combats inflammation by inhibiting the formation of prostaglandins and leukotrienes, which are pro-inflammatory fatty acid derivatives.<sup>17</sup> Ginger has been shown to decrease the pain and inflammation in rheumatoid arthritis (RA), and the pain of dysmenorrhea, in a review of clinical trials.<sup>18,19</sup> In rats, ginger has been shown to have anti-parasitic effects against *Schistosoma*, *Trichinella spiralis*, and *Giardia*.<sup>20</sup> Additionally, in a randomized, controlled cross-over trial, ginger appeared to normalize digestive function by regulating muscular contractions in the intestines while reducing nausea by modulating activity in 5-HT, receptors.<sup>21</sup>

### Chinese Skullcap (Scutellaria baicalensis) Root

Chinese or Baical skullcap is a fundamental herb in Traditional Chinese Medicine. It exhibits anti-fungal, anti-viral, and anti-bacterial properties. One of the main active constituents in Chinese skullcap is the flavonoid baicalein. Baicalein has been shown to have antifungal activity against *Candida* species in vitro.<sup>22</sup> Baicalin is a flavonoid analogue of baicalein that has also demonstrated anti-viral effects in vitro and in vivo against hepatitis B virus (HBV), as well as anti-bacterial effects against the formidable methicillin-resistant *Staphylococcus aureus* (MRSA) in vitro.<sup>23</sup> In addition to killing microbes, baicalin has also been shown to protect mouse tissue from damage caused by an *E. coli* toxin.<sup>24</sup>

### Berberine Hydrochloride (HCI)

Berberine, a powerful plant alkaloid found in several plants including Oregon grape and goldenseal, has anti-inflammatory, anti-microbial, and anti-cancer properties. Extensive studies on berberine have demonstrated that it is strongly anti-inflammatory and toxic to several types of cancer cells including hepatic, colorectal, and gastric cancers.<sup>25</sup> Additionally, berberine is effective against

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pathogenic *Candida* species, as well as several bacteria including *Staphylococcus, Streptococcus, Salmonella, Shigella*, and *Clostridium*.<sup>26,27</sup> Berberine has also shown promise in preventing the recurrence of *Clostridium difficile* infection in mice.<sup>28</sup> Although it is strongly antimicrobial, berberine does not seem to harm commensal gut bacteria such as *Lactobacilli* and *Bifidobacteria*.<sup>27</sup>

### Lauric Acid (derived from coconut)

Lauric acid is a fatty acid derived from coconut (*Cocos nucifera*). It exhibits antibacterial activity against several gram positive and gram negative organisms, including *Clostridium difficile*.<sup>28,29,30</sup>

# **Supplement Facts**

Serving Size: 2 Vegetarian Capsules

Servings Per Container: 45

### Amount Per Serving % DV

### **Proprietary Plant Extract Blend**

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Sweet Wormwood (Artemisia annua), Milk Thistle (Silybum marianum), Oregano (Origanum vulgare), Rosemary (Rosmarinus officinalis), Chinese Skullcap (Scutellaria baicalensis), Ginger (Zingiber officinale), Berberine HCL (from Phellodendron chinense) and Monolaurin (Glyceryl monolaurate)

**Other ingredients:** Cellulose (from capsule), Organic Rice Flour, Nu-Mag and Nu-Flow.

**Allergen Information:** Not manufactured with yeast, wheat, gluten, soy, milk, egg, fish, shellfish or tree nut ingredients. Produced in a GMP facility that processes other ingredients containing these allergens.

**Suggested Use:** Take 2 capsules daily preferably with a meal or as directed by your physician.

**Caution:** For adults only. Consult physician if you are pregnant/nursing, taking medication, or have a medical condition.

Keep out of reach of children.

Store in a cool, dry place.

Manufactured in the USA in a GMP compliant facility.

†Suitable for Vegetarians.

### **References:**

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<sup>\*\*</sup> Daily Value (DV) not established