



# K29 GASTRO-ULC™

Supports Gastrointestinal Health

## BENEFITS OF PRODUCT

- Contains flavonoids that support the health of the gastric mucosa lining.
- Provides compounds with naturally-occurring antibacterial properties to specially during Helicobacter activity pylori reestablish healthy gastrointestinal terrain.

## USE OF PRODUCT

The compounds in Gastro-ULC™ have shown the ability to increase the number of villi and cells of the small intestine, manage gastric inflammation, increase mucous formation, and maintain healthy gastric lining.

## OTHER PRODUCTS TO CONSIDER

H-PLR™ (K32) is strongly recommended, as it provides natural agents that exhibit antimicrobial activity. Adapatochrine® (K02) provides herbal adaptogens that may help support the system during stress-induced conditions. AdrenaCalm™ (K16) provides a liposomal delivery form of phosphatidylserine, which may attenuate the stress response. ClearVite-SF® (K24) supports the gastrointestinal lining and serves as a dietary program to avoid offending allergens.

## KEY INGREDIENTS RESEARCH COMMENTARY

The research information presented here should not be construed as claims regarding performance of this product.

### DEGLYCYRRHIZINATED LICORICE ROOT (DGL)

DGL is a popular and substantially-studied, natural compound that provides flavonoids shown to heal the gastric lining. Many different mechanisms have been demonstrated with regard to its restorative properties, including stimulation and differentiation of glandular cells, mucous formation and secretion, and the growth and regeneration of the stomach and intestinal cells.<sup>1 2 3 4</sup>

### GLUTAMINE

Glutamine is the preferred fuel source for the cells of the small intestine, and has been shown to be helpful in the regeneration and repair of the intestinal lining. It has demonstrated the ability to increase the number of cells in the small intestine, the number of villi on those cells, as well as the height of the villi. Glutamine also reduces permeability of the lining that may accompany "leaky gut" patterns and lead to inflammation or the development of delayed food intolerances.<sup>5 6 7</sup>

### FLAVONOIDS (CATECHIN)

The flavonoid catechin has demonstrated properties that inhibit the enzyme histidine decarboxylase, thereby supporting anti-ulcer activity. Several studies have demonstrated the positive impacts of catechin on ulcerative states.<sup>8 9</sup> Flavonoids such as catechin have also been shown to inhibit H. pylori in a clear-cut concentration-dependent manner.<sup>10</sup>

### BISMUTH CITRATE

Bismuth is a naturally-occurring mineral that exhibits activity against H. pylori and is used in the treatment of ulcers. Two double-blind placebo-controlled studies have demonstrated the safe and effective use of bismuth in managing gastric inflammation.<sup>11 12</sup>

### GAMMA-ORYZANOL

Gamma-Oryzanol is an ester of ferulic acid that is isolated from rice bran oil. It has been demonstrated as a powerful antioxidant in experimental studies.<sup>13 14</sup> Gamma-Oryzanol has proven effective in numerous gastrointestinal disorders including ulcers, irritable bowel syndrome, gastritis, and even non-specific gastrointestinal conditions. In addition to having an anti-inflammatory impact, it also seems to have normalization properties over the gastrointestinal nervous system.<sup>15 16 17</sup>

## Supplement Facts

Serving size 1 tablet

Servings per container 90

Amount Per Serving	% Daily Value
Deglycyrrhizinated Licorice root (DGL)	300 mg *
L-Glutamine	200 mg *
Mastic gum	150 mg *
Flavonoids (catechin)	100 mg *
Bismuth citrate	75 mg *
Gamma Oryzanol	75 mg *
Chlorophyll	50 mg *
Rhubarb root	50 mg *
Bentonite Clay	50 mg *

\*Daily Value not established

Other ingredients: stearic acid, silica, croscarmellose sodium.

## DIRECTIONS

Take 1-2 tablets, 3 times a day, or as directed by your healthcare professional.

Statements in this flyer have not been evaluated by the Food and Drug Administration.

This product is not intended to diagnose, treat, cure, or prevent any disease.

This product should not be used to replace any conventional medical treatment prescribed by a physician.

It is intended only to be used as a nutritional supplement to support systemic and metabolic health.

# Formula Info Page

PRFIPKLBK03(1108)



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**RHUBARB OFFICINALE**

Rhubarb is a plant-based compound that provides astringent anthraquinones and flavonoids. It may provide support in healing the gastrointestinal tract during ulcerative conditions. In one double-blind study of 312 cases, it demonstrated the ability to change pre and post-stool occult blood tests with a 90% efficacy rate within 56 hours.<sup>16</sup>

**MASTIC GUM**

Mastic is a resinous exudate obtained from the stem and the main leaves of *Pistacia lentiscus*. It is used as a food ingredient in the Mediterranean region. Clinically, mastic has been effective in the treatment of benign gastric ulcers and duodenal ulcers.<sup>19 20 21</sup>

**REFERENCE INFO**

<sup>1</sup> Sarker SA, Gyr K. Non-immunological defenses mechanisms of the gut. *Gut* 1992; 33:987-983.

<sup>2</sup> Balakrishnan V, et al. Deglycyrrhizinated liquorice in the treatment of chronic duodenal ulcer. *J Assoc Phys Ind* 1978;26; 811-814.

<sup>3</sup> Tewari S, Trembalowicz. Some experience with deglycyrrhizinated liquorice in the treatment of gastric and duodenal ulcers with special references to its spasmolytic effect. *Gut* 1968;9:48.

<sup>4</sup> Marie J, et al. Deglycyrrhizinated Liquorice (DGL) and the renewal of rat stomach epithelium. *Eur J Pharm* 1981;72:219.

<sup>5</sup> Klimberg V, et al. Prophylactic glutamine protects the intestinal mucosa from radiation injury. *Cancer* July 1;66(1):62-68, 1990.

<sup>6</sup> Noyar CM, et al. A double-blind placebo-controlled pilot study of glutamine therapy for abnormal intestinal permeability in patients with AIDS. *Am J Gastroenterol* 93(6), 972-975, 1998.

<sup>7</sup> Evans MA and Shronts EP. Intestinal fuels: glutamine, short-chain fatty acids, and dietary fiber. *J Amer Diet Assoc* 92, 1239-1246, 1992.

<sup>8</sup> Parmar N Ghosh M. Gastric anti-ulcer activity of (+)-cyanidanol-3, a histidine decarboxylase inhibitor. *Eur J Pharmacol* 1981;69: 25-32.

<sup>9</sup> Wendt P, Reiman H, et al. The use of flavonoids as inhibitors of histidine decarboxylase in gastric diseases. Experimental and clinical studies. *Naunyn-Schmiedeberg's Arch Pharma (Supplement)* 1980;313:238.

<sup>10</sup> Beil W, Birkholz, Sewing KF. Effects of flavonoids on parietal cell acid secretion, gastric mucosal prostaglandin production and *Helicobacter pylori* growth. *Arzneim Forsch* 1995;45:697-700.

<sup>11</sup> Kang Jy, et al. Effect of colloidal bismuth subcitrate on symptoms and gastric histology in non-ulcer dyspepsia. A double blind placebo controlled study. *Gut* 1990;31: 476-480.

<sup>12</sup> Marshall BJ, Valenzuela JE, McCallum RW. Bismuth subsalicylate suppression of *Helicobacteria pylori* in non-ulcer dyspepsia. A double blind placebo controlled trial. *Dig Dis Sci* 1993; 38:1674-1680.

<sup>13</sup> Graf E. Antioxidant potential for ferulic acid. *Free Rad Biol Med* 13, 435-448, 1992.

<sup>14</sup> Scott BC, et al. Evaluation of the antioxidant actions of ferulic acid and catechins. *Free Rad Res Comms* 19, 241-253, 1993.

<sup>15</sup> Takemoto T, et al. Clinical trial of Hi-Z pills on gastrointestinal symptoms at 375 hospitals. *Shiyaku To Rinsho* 26, 2-27, 1977

<sup>16</sup> Sasagwa T, et al. Clinical studies on gamma-oryzanol in the treatment of gastro-enero neurosis. *Basic Pharmacol Ther* 4, 588-591, 1980.

<sup>17</sup> Minakuchi C, et al. Clinical effects of gamma-oryzanol on gastric system complaints. *Shiyaku To Rinsho* 25, 29-33, 1976.

<sup>18</sup> Zhou H, Jiao D. 312 cases of gastric and duodenal ulcer bleeding treated with 3 kinds of alcoholic extract rhubarb tablets. *Chung His I Chieh Tsa Chih* 1900; 10: 150-151, 131-132.

<sup>19</sup> Magiatis P, Melliou E, Skaltsounis AL, Chinou IB, Mitaku S. Chemical composition and antimicrobial activity of the essential oils and *Pistacia lentiscus* var. chia. *Planta Med.* 1999 Dec;65(8):749-52.

<sup>20</sup> Carson CF, Riley TV. Non-antibiotic therapies for infectious diseases. *Commun Dis Intell.* 2003;27 Suppl:S143-6.

<sup>21</sup> Marone P, Bono L, Leone E, Bona S, Carretto E, Perversi L. Bactericidal activity of *Pistacia lentiscus* mastic gum against *Helicobacter pylori*. *J Chemother.* 2001 Dec;13(6):611-4.