

## APPLICATIONS

- Cardiovascular and Metabolic Support
- Microbial Support
- Inflammatory Response Support
- Antioxidant Support



## INTRODUCTION

Stevia is a hydro-ethanol extract from Stevia leaf (*Stevia rebaudiana*). *S. rebaudiana*, formerly known as *Eupatorium rebaudiana*,<sup>1</sup> is part of the Asteraceae/Compositae family, native to Brazil and Paraguay, and used as a dietary supplement as well as a sweetener. The constituents responsible for the sweet taste are steviol glycosides, including stevioside, rebaudiosides A-F, steviolbioside, isosteviol, and dulcoside A, of which stevioside and rebaudioside A are the most abundant.<sup>2,3</sup> Steviol glycosides are approximately 250-300 times sweeter than sucrose.<sup>3</sup> *S. rebaudiana* also contains phytosterols such as stigmasterol, beta-sitosterol, and campesterol,<sup>2</sup> as well as flavonoids, diterpenes, triterpenes, vitamins, and minerals.<sup>2,3</sup>

Stevia is made at our U.S. manufacturing facility and because our extracts are made in our own facility, we control all aspects of quality, including stringent ID testing, microbial testing, and heavy metal testing. NutraMedix rigorously follows current good manufacturing practices (cGMP), as do our suppliers.

## CARDIOVASCULAR AND METABOLIC SUPPORT

Stevioside within *S. rebaudiana* may help to maintain healthy blood pressure levels already within the normal range.<sup>4</sup> Blood pressure support from steviol glycosides may be related to alterations in glomerular filtration rate and transport of water and salt in renal tubules, supporting normal sodium and potassium excretion.<sup>5</sup> Stevioside may support normal vasodilation through changes in Ca<sup>2+</sup> ion inflow to vascular smooth muscle,<sup>1</sup> and may help to maintain blood pressure levels already within the normal range.<sup>6</sup>

Stevioside within *S. rebaudiana* may help to maintain cholesterol levels already within the normal range.<sup>7</sup> It may help to maintain total cholesterol (TC), triglycerides (TG), low density lipoprotein (LDL), very low density lipoprotein (VLDL), and the LDL/HDL ratio within the normal range. It may also help to maintain HDL levels already within a healthy range,<sup>8,9</sup> as well as maintain an atherogenic index already within a healthy range.<sup>9</sup> Additionally, Stevia may help to support hepatic cellular health.<sup>10</sup>

*S. rebaudiana* may help to maintain a healthy energy intake and support satiety.<sup>11,12</sup> Colonic microbiota convert steviol glycosides into steviol glucuronides, which are then excreted into the urine.<sup>13</sup> In a human study comparing Stevia to control without dietary restrictions, a 24-hour diet recall was used to track calories, carbohydrates, protein, fat, and fiber. The Stevia group was found to have a higher protein intake, lower carbohydrate intake, and lower overall calorie intake, compared to control.<sup>9</sup> In animal studies, isosteviol from *S. rebaudiana* has shown support of a healthy body weight.<sup>14</sup>

*S. rebaudiana* may help with blood glucose support, helping to maintain both fasting and postprandial glucose levels already within the normal range.<sup>9,15</sup> Steviol may help to decrease the intestinal absorption of glucose.<sup>16</sup> Steviol glycosides such as stevioside and rebaudioside A may help to support pancreatic health and maintain both insulin and glucagon levels already within the normal range.<sup>9,17,18</sup> *S. rebaudiana* extract may also help to maintain healthy insulin sensitivity in 3T3-L1 adipocytes.<sup>19</sup> Lastly, *S. rebaudiana* may help to support healthy glycogen levels in both liver and muscles.<sup>20</sup>

## MICROBIAL SUPPORT

*S. rebaudiana* leaf extract may help with diverse types of microbial support, including a variety of morphological forms.<sup>21,22,23</sup> It may also help with mycelial support.<sup>1</sup>

## OTHER USES

### Inflammatory Response Support

*S. rebaudiana* may help with healthy inflammatory response support.<sup>24</sup> Stevioside and its metabolite steviol may assist with cytokine support, helping to maintain healthy levels of TNF-alpha, IL-1-beta, IL-6, and NF-kappaB already within the normal range.<sup>24</sup> It may also help to maintain levels of cytokine-governing lipopolysaccharides already within the normal range.<sup>1</sup>

### Antioxidant Support

Polyphenols and flavonoids in *S. rebaudiana* leaves may contribute antioxidant support to help with normal oxidative stress.<sup>26,27</sup> *S. rebaudiana* may help to maintain superoxide dismutase (SOD) levels already within the normal range, contributing antioxidant support.<sup>14</sup>

## SAFETY AND CAUTIONS

*S. rebaudiana* is generally well tolerated. Nausea and dizziness have been known to occur, though at a similar rate to placebo, and usually resolves after the first week of use.<sup>4</sup> While one study found *S. rebaudiana* to weakly inhibit CYP3A4 and CYP2C9,<sup>27</sup> another concluded that there were only minor or no changes to CYP activity or expression, and thus unlikely to cause cytochrome P450 interactions with pharmaceuticals.<sup>28</sup> *S. rebaudiana* may theoretically increase lithium levels due to increased diuresis and decreased lithium excretion.<sup>29</sup> *S. rebaudiana* may theoretically have additive effects when taken concurrently with antidiabetic or antihypertensive medications.<sup>29</sup>

Safety not documented in breastfeeding or pregnant women, or in children under 3 years of age due to insufficient safety research.

**\* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to treat, cure, or prevent any diseases.**



# STEVIA

**MICROBIAL SUPPORT †**

**Dietary Supplement**

**2 fl oz. (60 mL)**

**SHAKE WELL BEFORE EACH USE.**  
Put 1 to 30 drops in 4 oz (120 mL) of water and wait one minute before drinking. Start with 1 drop (30 min. before meals) increasing slowly up to 30 drops 3-4 times per day or as directed by your physician. Do not use if pregnant or nursing. Stop use if adverse reactions develop. Keep out of reach of children.

**†This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.**



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**Supplement Facts**  
Serving Size 30 drops  
Servings Per Container 40

Amount Per Serving	V000000
Stevia leaf extract	1.5 mL*
*Daily Value not established	

**Other ingredients:** water, ethanol (20-24%)

**NutraMedix**   
Jupiter, Florida 33458 USA  
www.nutramedix.com  
561-745-2917

Lot #  
Exp.

## REFERENCES

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