GluNOzym™

Delivering Healthy Blood Glucose Levels

ananda PROFESSIONAL

GluNOzym™ Overview

Ananda Professional's GluNOzym™ sugar free gummies contain a clinically trialed dose of Mulberry leaf (*Morus alba L*) extract known as Reducose®. This extract has been in multiple clinical trials showing positive response to slowing glucose absorption and improving insulin sensitivity[1], offering some promising solutions for weight management and supporting insulin control responses with each meal.

Supplement Facts

Serv. Size: 1 gummy
Servings Per Bottle: 30

Amount Per Serving		%DV
Calories	10	
Carbohydrates	2g	1%*
Total Sugars	0g	0%*
Total Fat	0g	0%*
Cholesterol	0mg	0%*
Sodium	5mg	<1%*
Reducose® (White Mulberry Leaf Extract	**250mg**	†
Potassium	10g	<1%*

*Percent Daily Values (DV) are based on a 2,000 calorie diet. †Daily Value not established

Other Ingredients: Soluble Corn Fiber, Water, Allulose, Orafti P95, Pectin, Natural Color, Natural Flavor, Citric Acid, Stevia.

Suggested Use: Take one gummy before a meal. Consult your pharmacist or provider for guidance.

Reducose® Clinical Trials

There have been two clinical trials have conducted on Reducose® extract. The first trial, published in 2017 was a randomized controlled trial in healthy adults where the participants were given either Reducose® extract or a placebo for 12 weeks. In this trial they measured blood glucose and insulin responses when co-administered with 50g of malto-dextrin. The results of the trial showed that Reducose® extract significantly reduced postprandial blood glucose levels by up to 42% compared to placebo[2].

The second trial, published in 2021, was a double-blind, randomized, placebo-controlled, crossover trial in people with type 2 diabetes. The participants were given either Reducose® extract or a placebo for 12 weeks. The results of this trial showed that Reducose® extract significantly reduced fasting blood glucose levels by an average of 15% compared to placebo[3].

Both trials were found to be well-designed and conducted, and the results were statistically significant.

Figure 1:

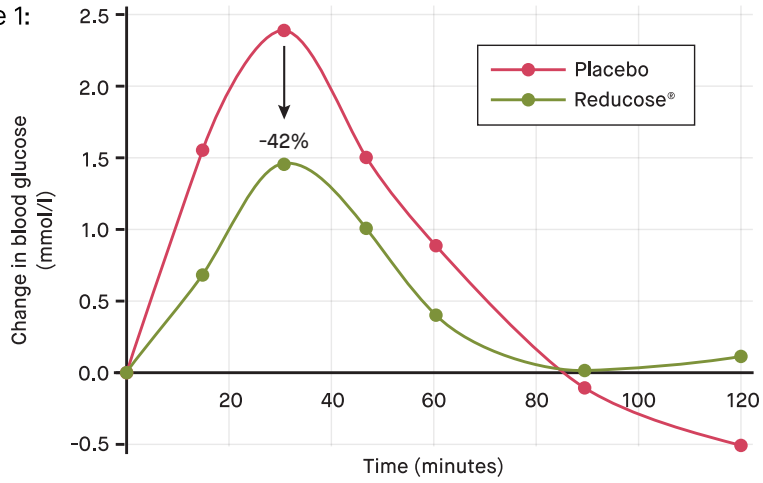


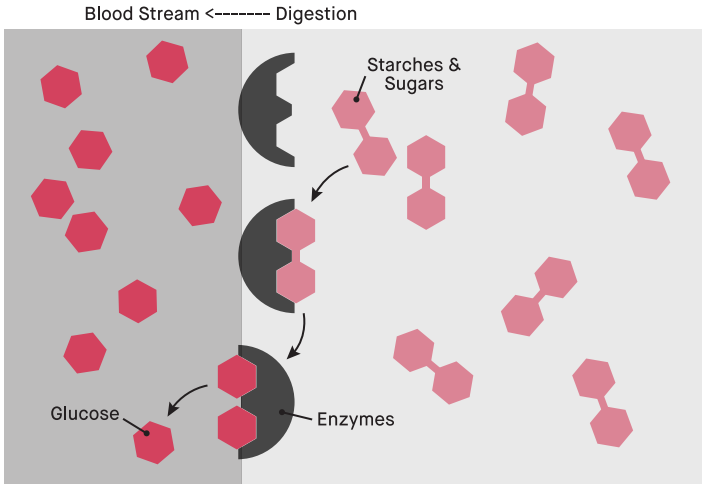
Figure 1 illustrates the change in blood sugar with Reducose® vs Placebo at time points after a meal.

It's important to note that there were no adverse events reported in the clinical studies, and there was no difference in the incidence or severity of gastrointestinal side effects between Reducose® and placebo, as measured by a gastrointestinal symptom questionnaire.

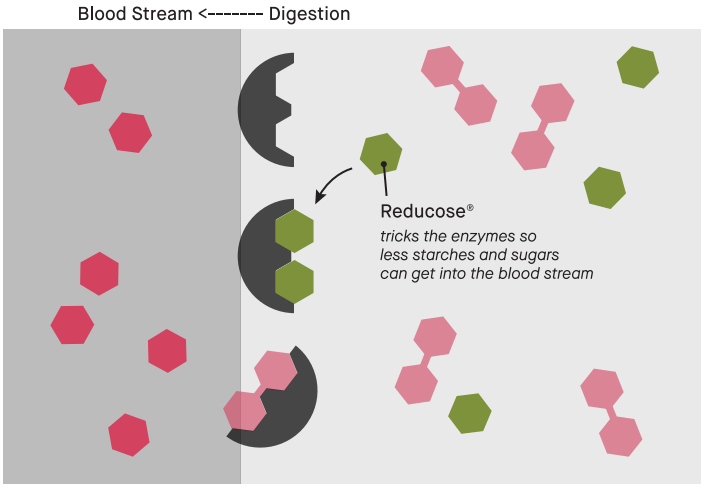
Reducose

Pathway to Weight Management

Reducose® extract works by inhibiting the activity of two enzymes: alpha-amylase and alpha-glucosidase. These enzymes play a role in breaking down carbohydrates into glucose.[4,5] The compounds found in Reducose® are able to bind to these two enzymes and inhibit their action on the carbohydrate bonds, helping to slow the absorption of glucose into the bloodstream[6] and thus lowering postprandial blood glucose.



Normally, sugars and starches are broken down into glucose and absorbed into the bloodstream, resulting in a quick rise in blood glucose within the body.



GluNOzym™ + Reducose® stops these carbs from turning into glucose in your blood. Instead, it helps them pass through your gut without getting absorbed, so you don't have to worry about them affecting your blood sugar levels.

The Ileal Brake and Second Meal Effect

When undigested carbohydrates reach the ileum they trigger a reflex called the ileal brake. The ileal brake slows down the emptying of the stomach and small intestine, which helps to reduce postprandial blood glucose levels.[7] Lowering postprandial blood glucose can have many positive effects, including maintaining a healthy body weight composition.[8]

What is the Ileal Brake?

The ileal brake is a nutrient-triggered inhibitory feedback mechanism that induces satiety. When macronutrients bind to receptors in the ileum, the ileal brake is triggered resulting in a slowing of upper gut motility, reduced appetite, and delayed gastric emptying[9].

The ***'Second Meal Effect'*** is a phenomenon where the glycemic index (GI) of one meal can influence the glycemic response to a subsequent meal. This can play a key role in weight management and reducing insulin sensitivity as a high-GI meal can cause a rapid rise in blood sugar levels, followed by a sharp decline[10]. This drop in blood sugar levels can trigger the body to release ghrelin. Ghrelin, often dubbed the 'hunger hormone'[11] binds to a receptor called GHS-R1a, which is found in the hypothalamus, pituitary gland, and other tissues. When ghrelin binds to GHS-R1a, it stimulates appetite and the release of growth hormones. Ghrelin levels peak before a meal[12] and are a powerful stimulator of food intake, which have shown to lead to body weight gain and adiposity in both rodents and humans.[13,14,15]

One of the benefits of the second meal effect is how it potentially helps with weight loss. The glucose response after eating the initial low GI meal combined with the subsequent lower glucose response from the second meal effect result in the body's insulin response being moderated down.

Contrasting to GLP-1 Receptor Agonist

Another common pathway for weight management can be via glucagon-like peptide-1 (GLP-1) receptor agonist, that works by increasing the production of insulin and decreasing the production of glucagon (the hormone responsible for raising blood sugar levels)[16]. Often with this approach to decreasing blood sugar levels common side effects can be nausea, vomiting, abdominal cramps and diarrhea.[17,18]

References:

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Ananda Professional | 190 Corporate Blvd, Georgetown, KY 40324 | (888) 388-1119 | anandaprofessional.com