



K28 PROTOGLYSEN™

For Supporting Healthy Insulin and Blood Sugar Levels

BENEFITS OF PRODUCT

- Provides a diverse range of botanicals to help modulate the insulin response and support healthy blood sugar levels.

USE OF PRODUCT

This product is designed to be taken in conjunction with Glysen® (K01) for healthy blood sugar and insulin management. Glysen® (K01) provides the nutritional and mineral cofactors that support healthy insulin receptor site sensitivity and signaling. Protoglysen™ (K28) provides the botanicals that demonstrate the same impact.

OTHER PRODUCTS TO CONSIDER

Protoglysen™ (K28) is best used with its nutritional counterpart Glysen® (K01) to provide a nutritionally aggressive support system for insulin resistance. OmegaCo3™ (K07) provides a rich source of EFAs, and DHA should also be considered. In addition, AdrenaCalm™ (K16) and Adaptocrine® (K02) should be used to support stable and healthy cortisol levels.

KEY INGREDIENTS RESEARCH COMMENTARY

BANABA LEAF EXTRACT

Banaba leaf extract contains triterpenoid, lagerstroemin, flosin B, reginin A and corosolic acid, which have been shown to help regulate glucose levels. Studies indicate that these compounds produce glucose-lowering effects by enhancing peripheral glucose utilization.^{1 2}

MAITAKE MUSHROOM

Grifola frondosa, better known as maitake mushroom, appears to have glucose-stabilizing effects by improving peripheral insulin receptor site sensitivity. This response has been shown to simultaneously decrease circulating insulin and glucose concentrations.³

⁴ Maitake also appears to contain soluble fiber in the immune-enhancing form of beta glucan, which may slow glucose absorption from the gastrointestinal tract.⁵ No serious adverse side effects have been recognized.⁶

BITTER MELON

Mormordica charantia, better known as bitter melon, is the most popular plant used worldwide to support patients with diabetes.^{7 8}

⁹ Several clinical studies have been published demonstrating the glucose-balancing effect of bitter melon,^{10 11 12} as well as profound impacts on the management of diabetes in animal studies.¹³ Bitter melon, is well-tolerated and does not appear to have any adverse side effects, but it may not be appropriate for pregnant women.¹⁴

GYMNEMA SYLVESTRE

Gymnema sylvestre has demonstrated positive impacts in managing insulin resistance. It has shown the ability to reduce insulin requirements, decrease fasting blood sugar, and enhance the action of insulin. It has even demonstrated the ability to regenerate pancreatic beta-cells.^{15 16 17 18} It does not encourage the endogenous production of insulin, and if given to healthy volunteers, does not produce any blood sugar-lowering or hypoglycemic effects.^{19 20}

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.

Supplement Facts

Serving size 1 capsule

Servings per container 90

Amount Per Serving		% Daily Value
Banaba Leaf Extract	180 mg	*
Maitake Mushroom	180 mg	*
Bitter Melon	160 mg	*
Gymnema Sylvestre leaf extract	140 mg	*
Nopal Cactus	65 mg	*
L-Arginine	50 mg	*
Carnatine (as L-carnatine fumarate)	45 mg	*

*Daily Value not established

Other ingredients: gelatin (capsule).

DIRECTIONS

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

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
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OPUNTIA STREPTACANTHA LEMAIRE

The compounds in *Opuntia streptacantha lemaire* have demonstrated glucose-stabilizing effects. It is theorized that this compound, derived from cactus stems, decreases glucose reabsorption. In small studies, there was a 41-46% reduction of blood glucose with non-insulin-dependent diabetics. No adverse side effects are evident with this plant compound.^{21 22}

L-CARNITINE

L-carnitine has the potential to support insulin sensitivity by enhancing whole-body glucose uptake and increasing glucose storage.^{23 24 25} L-carnitine has been shown to support both peripheral nerve and vascular function in patients with diabetes.²⁶ In addition, it has been shown to significantly reduce total serum lipids and increase HDL cholesterol levels in diabetics.²⁷

L-ARGININE

L-arginine's activities, including its possible anti-atherogenic actions, may be accounted for by its role as the precursor to nitric oxide, or NO. NO is produced by all tissues of the body and plays a very important role in the cardiovascular system, immune system, and nervous system. L-arginine was credited with significantly managing lipid peroxidation in patients with diabetes mellitus.²⁸

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