

MEDICATION thru' NUTRITION

Polypeptide-k™ (PPk™)



A single molecule extract with 18 amino acids

PPk™ is a bioactive plant protein ingredient with positive results in regulating increased blood sugar levels. It can potentially curb obesity & metabolism issues, both are regarded as global health issues.

Approximately 57% of amino acids present in PPk™ regulate blood sugar levels and maintain glucose levels in the body.

- PPk™ is a single molecule extracted from bitter melon seeds (*Momordica charantia*) containing 18 amino acids.
- PPk™ and its extraction process have been patented in over 150 countries, including the USA, Europe, Australia, and Japan.

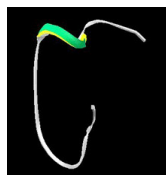
Functions

- Regulate and maintain healthy blood glucose levels naturally by attaching to inactive insulin to re-activate the insulin.
- Helps protect and rejuvenate the pancreas by reducing the workload on the pancreas, giving it more time to rejuvenate.
- Improves heart & lipid profile.

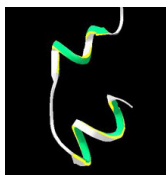
A Better Choice

- No known toxicity of overdose.
- Benefits overall health.
- Prevents hypoglycemia in diabetic patients.
- No known side effects with other prescribed drugs.
- No cross-reaction with insulin or other medication.

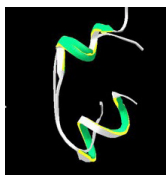
3D protein structure comparison



PPk™



Human
Insulin



Merged
Structure

*PPk™ has 34% homology to human insulin
Thomas et al., (1999) reported that 28% of homology exhibits similar properties to the original hormone.

18 amino acids of PPk™

Amino acid	Content (%)
Glutamine	17.1
Aspartic Acid	9.4
Arginine	9.2
Glycine	8.9
Leucine*	8.2
Alanine	7.3
Valine*	6.8
Proline & Cysteine	5.5
Serine	5.3
Isoleucine*	4.8
Phenylalanine*	4.2
Histidine*	3.1
Lysine* & Tryptophan*	3.0
Threonine*	3.0
Tyrosine	2.7
Methionine*	1.5

1. Opara et al. (1996): dietary Gln supplementation during high-fat feeding prevents the development of overweight hyperglycemia.
 2. Laviano et al. (2014): Gln enhances glucose metabolism.
 3. Yang (2020): Gln supplementation prevents obesity
- * denotes essential amino acids

Magna Mission Sdn Bhd (522325-X) | Livvon Marketing (M) Sdn Bhd (644611-V)
Ground Floor Warehouse Master Centre, Jalan Inovasi 4, Technology Park Malaysia, Puchong-Sg Besi Highway 57000
Kuala Lumpur, Malaysia.

Tel: +603-8992 3046 | CARELINE: +6011-2345 4850 | Email: info@diabegard.com | https://diabegard.com

@Diabegard | Polypeptide-k Diabegard | @Diabegard



MEDICATION thru' NUTRITION

Polypeptide-k™ (PPk™)

A single molecule extract with 18 amino acids

**You are what you eat!
Fuel your body right to
keep you energised and
healthy.**



US Patent 6831162: A maximum of 41% reduction in blood sugar levels in 605 patients suffering from diabetes for 2-20 years, after PPk supplementation for 28 weeks.

PPk™ reduces triglycerides and cholesterol.

Lee et al. (2011): Blood glucose levels with PPk supplemented soft roll required statistically lesser time to drop to baseline glucose level compared to control soft roll.

Yong et al. (2014): Six patients had a maximum of 50% reduction in fasting blood glucose with 42% reduction in glycated haemoglobin following PPk™ supplementation for 8 weeks.

Sirn et al. (2014): Six patients experienced a maximum reduction of 52% in LDL cholesterol, 47.67% in triglycerides and 36% in total cholesterol following PPk™ supplementation for 8 weeks.

Patients also had reduced readings for AST and ALT (46% and 47%, respectively) indicating improved liver function.

Sirn et al. (2021): Mean blood glucose levels dropped prominently from 14.23 mmol/L to 9.01 mmol/L in 142 patients after a 4-week supplementation with PPk™.

Patents

US Patent : US 6 831 162 B2

EP Patent : EP 1 171 455 B1

Malaysia Patent : PI 20004650



Magna Mission Sdn Bhd (522325-X) | Livvon Marketing (M) Sdn Bhd (644611-V)
Ground Floor Warehouse Master Centre, Jalan Inovasi 4, Technology Park Malaysia, Puchong-Sg Besi Highway 57000
Kuala Lumpur, Malaysia.

Tel: +603-8992 3046 | CARELINE: +6011-2345 4850 | Email: info@diabegard.com | <https://diabegard.com>

@ Diabegard | Polypeptide-k Diabegard | @ Diabegard