Creative Enzymes®

Semaglutide

Cat. No. CEPP-007

Lot. No. (See product label)

Introduction

Description

Semaglutide was initially approved for lowering blood glucose levels. While it does not directly reduce blood glucose, it regulates insulin release indirectly. When blood glucose levels rise, semaglutide promotes insulin release, helping to lower blood glucose. As blood glucose levels decrease and approach normal, semaglutide's effect on insulin release diminishes, thus the risk of hypoglycemia when using semaglutide alone is relatively low. Additionally, semaglutide delays gastric emptying, suppressing appetite and reducing food intake, which further helps in lowering blood glucose levels. Due to these properties of delaying gastric emptying and suppressing appetite, research has shown that semaglutide can also contribute to weight loss.

Applications

Semaglutide, a glucagon-like peptide-1 (GLP-1) receptor agonist, has several important applications, primarily in managing diabetes and obesity: 1. Diabetes Management Semaglutide was initially approved for the treatment of type 2 diabetes mellitus. It helps in managing blood glucose levels by: Regulating Insulin Release: Semaglutide enhances insulin secretion in response to elevated blood glucose levels. When glucose levels rise, semaglutide promotes insulin release, which helps lower blood glucose. As glucose levels normalize, this effect diminishes, reducing the risk of hypoglycemia. Suppressing Glucagon Release: It also reduces the secretion of glucagon, a hormone that increases blood glucose levels, thereby aiding in glucose regulation. Improving Glycemic Control: Semaglutide has been shown to significantly improve glycemic control in patients with type 2 diabetes, helping to achieve and maintain target HbA1c levels. 2. Weight Management Semaglutide has been found to be effective in promoting weight loss, which is particularly beneficial for overweight or obese individuals. Its weight management benefits include: Appetite Suppression: By delaying gastric emptying and acting on appetite centers in the brain, semaglutide helps reduce food intake and cravings. Sustained Weight Loss: Clinical studies have demonstrated that semaglutide can lead to significant and sustained weight loss, making it an effective option for long-term weight management. 3. Cardiovascular Benefits Semaglutide has also shown potential cardiovascular benefits: Reducing Cardiovascular Risk: In patients with type 2 diabetes and established cardiovascular disease, semaglutide has been shown to reduce the risk of major adverse cardiovascular events, such as heart attack and stroke. Improving Cardiometabolic Health: Its effects on weight loss and glycemic control contribute to overall improved cardiometabolic health, which is crucial for patients with diabetes and obesity.

Product Information

CAS No.	910463-68-2
Molecular Formula	C187H291N45O59
Molecular Weight	4,113.58 Da
Amino Acid Sequence	His-Aib-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Val-Ser-Ser-Tyr-Leu-Glu-Gly-Gln-Ala-Ala-Lys(PEG2-PEG2-γ-Glu-17-carboxyheptadecanoyl)-Glu-Phe-Ile-Ala-Trp-Leu-Val-Arg-Gly-Arg-Gly

Usage and Packaging

Package	50G/Bottle or at customers regirement

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Storage and Shipping Information

Storage	2~8°C