9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

C-Peptide

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HRM0012

Product Overview

Name	C-Peptide

Description

C-Peptide

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized with no additives.

Stability

Lyophilized C-Peptide although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution C-Peptide should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 97.0% as determined by analysis by RP-HPLC.

Amino acid sequence

H-Glu-Ala-Glu-Asp-Leu-Gln-Val-Gly-Gln-Val-Glu-Leu-Gly-Gly-Gly-Pro-Gly-Ala-Gly-Ser-Leu-Gln-Pro-Leu-Ala-Leu-Glu-Gly-Ser-Leu-Gln-OH.

Solubility

It is recommended to reconstitute the lyophilized C-Peptide in sterile 18MΩ-cm H 2 O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Background

C-peptide, a small peptide derived from proinsulin, has garnered increasing attention in recent years for its multifaceted physiological functions and clinical significance, particularly in the context of diabetes mellitus. While initially considered a mere byproduct of insulin synthesis, research has revealed that C-peptide exerts unique biological effects, extending beyond glycemic control. This research endeavors to comprehensively investigate the roles of C-peptide, shedding light on its diverse functions and potential applications in diabetes management and other areas of healthcare. The primary objective of this study is to unravel the mechanisms underlying the physiological actions of C-peptide. In vitro experiments using cellular and tissue models will be conducted to explore how C-peptide interacts with cellular receptors and signaling pathways. This includes investigations into its influence on insulin

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secretion, glucose uptake, and endothelial function. Understanding these mechanisms is essential for delineating the potential therapeutic applications of C-peptide. The second objective is to assess the clinical relevance of C-peptide in diabetes management. Clinical trials involving individuals with type 1 and type 2 diabetes will be conducted to evaluate the effects of exogenous C-peptide administration on glycemic control, insulin sensitivity, and microvascular complications. These studies may provide valuable insights into the use of C-peptide as an adjunct therapy in diabetes treatment. The third objective is to explore the broader implications of C-peptide in healthcare. Research will investigate the potential role of C-peptide in conditions beyond diabetes, such as its effects on cardiovascular health, neuroprotection, and wound healing. Understanding the multifunctional properties of C-peptide may open up new avenues for therapeutic interventions in various medical specialties. By delving into the diverse functions of C-peptide, this research aims to expand our knowledge of its physiological roles and clinical applications. The findings may lead to innovative approaches for diabetes management and offer insights into the broader healthcare implications of C-peptide.

Precautions

C-Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

Background

C-peptide, a small peptide derived from proinsulin, has garnered increasing attention in recent years for its multifaceted physiological functions and clinical significance, particularly in the context of diabetes mellitus. While initially considered a mere byproduct of insulin synthesis, research has revealed that C-peptide exerts unique biological effects, extending beyond glycemic control. This research endeavors to comprehensively investigate the roles of C-peptide, shedding light on its diverse functions and potential applications in diabetes management and other areas of healthcare. The primary objective of this study is to unravel the mechanisms underlying the physiological actions of C-peptide. In vitro experiments using cellular and tissue models will be conducted to explore how C-peptide interacts with cellular receptors and signaling pathways. This includes investigations into its influence on insulin secretion, glucose uptake, and endothelial function. Understanding these mechanisms is essential for delineating the potential therapeutic applications of C-peptide. The second objective is to assess the clinical relevance of C-peptide in diabetes management. Clinical trials involving individuals with type 1 and type 2 diabetes will be conducted to evaluate the effects of exogenous C-peptide administration on glycemic control, insulin sensitivity, and microvascular complications. These studies may provide valuable insights into the use of C-peptide as an adjunct therapy in diabetes treatment. The third objective is to explore the broader implications of C-peptide in healthcare. Research will investigate the potential role of C-peptide in conditions beyond diabetes, such as its effects on cardiovascular health, neuroprotection, and wound healing. Understanding the multifunctional properties of C-peptide may open up new

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