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

IGF1 E3R Human

Insulin Like Growth Factor-1, Mutant E3R Human Recombinant
GRF0160

Product Overview

Name	IGF1 E3R Human

Description

Insulin Like Growth Factor-1, Mutant E3R Human Recombinant

Accession (Primary)	P05019

Synonyms

Insulin-Like Growth Factor-1.

Source

Escherichia Coli.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The filtered (0.4 µm) concentrated protein solution was lyophilized from 0.5mg/ml solution in 50 mM NaCl, 20 mM Tris and 5% (w/v) trehalose, pH 8.0.

Stability

Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time.

Purity

Greater than 95% as determined by SDS-PAGE.

Amino acid sequence

MGPRTLCGAE LVDALQFVCG DRGFYFNKPT GYGSSSRRAP QTGIVDECCF RSCDLRRLEM YCAPLKPAKS A HHHHHH .

Solubility

It is recommended to add deionized water to prepare a working stock solution of approximately 0.5mg/ml and let the lyophilized pellet dissolve completely. IGF1 E3R is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

Background

Insulin-like Growth Factor 1 (IGF-1) is a critical peptide hormone that plays a central role in regulating growth and development. Genetic mutations in the IGF-1 gene can result in altered IGF-1 variants, leading to various physiological

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consequences. Understanding these IGF-1 mutants is of paramount importance as they offer insights into growth disorders, metabolic regulation, and potential therapeutic avenues. This research delves into the world of IGF-1 mutants, shedding light on their diverse functions and implications for human health. The primary objective of this research is to elucidate the impact of IGF-1 mutations on growth regulation. In vitro and in vivo experiments will be conducted to investigate how these mutants interact with IGF-1 receptors, influence downstream signaling pathways, and modulate growth plate dynamics. Understanding these mechanisms is crucial for unraveling the complexities of growth disorders associated with IGF-1 mutations. The second objective is to assess the clinical relevance of IGF-1 mutants in growth-related conditions. Clinical studies involving individuals with growth hormone deficiencies or growth disorders linked to IGF-1 mutations will be conducted to evaluate the effects of these mutants on stature and overall health. These investigations may provide valuable insights into potential therapeutic strategies for individuals affected by growth-related disorders. The third objective is to explore the broader implications of IGF-1 mutants in metabolic regulation and age-related conditions. Research will investigate their roles in metabolic homeostasis, longevity, and susceptibility to age-related diseases. Understanding the multifaceted properties of IGF-1 mutants may open new avenues for therapeutic interventions in various health and aging-related conditions. By delving into the diverse functions of IGF-1 mutants, this research aims to expand our understanding of their physiological roles and clinical applications. The findings may contribute to the development of targeted interventions for growth disorders, metabolic conditions, and age-related diseases.

Precautions

IGF1 E3R Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P05019)

Background

Insulin-like Growth Factor 1 (IGF-1) is a critical peptide hormone that plays a central role in regulating growth and development. Genetic mutations in the IGF-1 gene can result in altered IGF-1 variants, leading to various physiological consequences. Understanding these IGF-1 mutants is of paramount importance as they offer insights into growth disorders, metabolic regulation, and potential therapeutic avenues. This research delves into the world of IGF-1 mutants, shedding light on their diverse functions and implications for human health. The primary objective of this research is to elucidate the impact of IGF-1 mutations on growth regulation. In vitro and in vivo experiments will be conducted to investigate how these mutants interact with IGF-1 receptors, influence downstream signaling pathways, and modulate growth plate dynamics. Understanding these mechanisms is crucial for unraveling the complexities of

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