

Recombinant Human GCG, HlgG4 Fc-tagged therapeutic protein

Cat. No. GCG-P011H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Human GLP-1, HlgG4 Fc-tagged therapeutic protein is a novel, long-acting glucagon-like peptide 1 (GLP-1) analog. consists of GLP-1(7-37) covalently linked to an Fc fragment of human IgG4, thereby protecting the GLP-1 moiety from inactivation by dipeptidyl peptidase 4. binding to glucagon-like peptide 1 receptor, slows gastric emptying and increases insulin secretion by beta cells in the pancreas. Simultaneously the compound reduces the elevated glucagon secretion by alpha cells of the pancreas, which is known to be inappropriate in the diabetic patient. GLP-1 is normally secreted by L cells of the gastrointestinal mucosa in response to a meal. GLP-1 is a hormone that is involved in the normalization of level of glucose in blood (glycemia).

Species

Human

Description

The protein encoded by this gene is actually a preproprotein that is cleaved into four distinct mature peptides. One of these, glucagon, is a pancreatic hormone that counteracts the glucose-lowering action of insulin by stimulating glycogenolysis and gluconeogenesis. Glucagon is a ligand for a specific G-protein linked receptor whose signalling pathway controls cell proliferation. Two of the other peptides are secreted from gut endocrine cells and promote nutrient absorption through distinct mechanisms. Finally, the fourth peptide is similar to glicentin, an active enteroglucagon.

Endotoxin

< 0.1 EU per µg of the protein

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Purity >98%

GENE INFORMATION

Gene Name GCG glucagon [Homo sapiens]

Official Symbol GCG

Synonyms GCG; glucagon; glicentin related polypeptide; GLP1; GLP2; glucagon like peptide 1; glucagon like peptide 2; GRPP; glucagon-like peptide 1; glucagon-like peptide 2; glicentin-related polypeptide;

Gene ID 2641

mRNA Refseq NM_002054

Protein Refseq NP_002045

MIM 138030

UniProt ID P01275

Chromosome Location 2q36-q37

Pathway Class B/2 (Secretin family receptors), organism-specific biosystem; Diabetes pathways, organism-specific biosystem; Disease, organism-specific biosystem; FOXA1 transcription factor network, organism-specific biosystem; G alpha (q) signalling events, organism-specific biosystem; G alpha (s) signalling events, organism-specific biosystem; GPCR downstream signaling, organism-specific biosystem;

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Function

glucagon receptor binding; hormone activity; receptor binding;

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