GLP-1/GCG Protein, Human (HEK293, His)

Cat. No.:	HY-P70239
Synonyms:	rHuPro-glucagon/GCG, His ; Glucagon; Glicentin; Glicentin-Related Polypeptide; GRPP; Oxyntomodulin; OXM; OXY; Glucagon; Glucagon-Like Peptide 1; GLP-1; Incretin Hormone; Glucagon-like Peptide 1; GLP-1; Glucagon-Like Peptide 2; GLP-2; GCG
Species:	Human
Source:	HEK293
Accession:	P01275 (R21-K180)
Gene ID:	2641
Molecular Weight:	Approximately 19.0 kDa

PROPERTIES

AA Sequence	R S L Q D T E E K S R S F S A S Q A D P L S D P D Q M N E D K R H S Q G T F T S D Y S K Y L D S R R A Q D F V Q W L M N T K R N R N N I A K R H D E F E R H A E G T F T S D V S S Y L E G Q A A K E F I A W L V K G R G R R D F P E E V A I V E E L G R R H A D G S F S D E M N T I L D N L A A R D F I N W L I Q T K I T D R K
Appearance	Solution.
Formulation	Supplied as a 0.2 μm filtered solution of 20 mM Tris-HCl, 200 mM NaCl, 1 mM DTT, 50% Glycerol, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	GLP-1/GCG Protein assumes a pivotal role in glucose metabolism and homeostasis, orchestrating a range of functions to regulate blood glucose levels. As a counterregulatory hormone to insulin, it increases gluconeogenesis while decreasing glycolysis, playing a crucial role in elevating plasma glucose levels during insulin-induced hypoglycemia. Additionally, GLP-1/GCG is a potent stimulator of glucose-dependent insulin release and responds to IL6, further influencing insulin secretion. Beyond its impact on glucose dynamics, it plays significant roles in gastric motility, suppressing plasma glucagon levels, and may contribute to the modulation of satiety and glucose disposal in peripheral tissues, independently of insulin actions. The protein also exhibits growth-promoting activities on intestinal epithelium and is implicated in the regulation of the hypothalamic pituitary axis (HPA), influencing the secretion of LH, TSH, CRH, oxytocin, and vasopressin. Notably, GLP-1/GCG increases islet mass by stimulating islet neogenesis and pancreatic beta cell proliferation, while concurrently inhibiting beta

	cell apoptosis, suggesting its multifaceted contributions to glucose homeostasis and overall metabolic regulation.

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