Synthetic Human Glucagon

Cat. No. GCG-370H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Synthetic HumanGlucagon is a single, non-glycosylated, polypeptide chain containing 29 aminoacids and having a MW 3.483 kDa.
Species	Human
Source	Synthetic
Description	The protein encodedby this gene is actually a preproprotein that is cleaved into four distinctmature peptides. One of these, GCG, is a pancreatic hormone that counteractsthe glucose-lowering action of insulin by stimulating glycogenolysis andgluconeogenesis. GCG is a ligand for a specific G-protein linked receptorwhose signaling pathway controls cell proliferation. Two of the otherpeptides are secreted from gut endocrine cells and promote nutrientabsorption through distinct mechanisms. Finally, the fourth peptide issimilar to glicentin, an active enter GCG.
Form	Lyophilized with noadditives.
Purity	Greater than 98.0%as determined by analysis by RP-HPLC and SDS-PAGE gel.
Amino Acid Sequence	H-His-Ser-Gln-Gly-Thr-Phe-Thr-Ser-Asp-Tyr-Ser-Lys-Tyr-Leu-Asp-Ser-Arg-Arg-Ala-Gln-Asp-Phe-Val-Gln-Trp-Leu-Met-Asn-Thr-OH
Reconstitution	Centrifugevial prior to opening. First add sterile water to the vial to fullysolubilize the protein to a concentration not less than 100 ug/ml. Aftercomplete solubilization of the protein, it can be further diluted to otheraqueous solutions.

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EndotoxinLevel	Less than0.1 ng/ug (1 EU/ug) of the protein.
Storage	Lyophilizedsamples are stable at room temperature for 3 weeks, but it is recommended tostore them desiccated at -20°C to -80°C. Upon reconstitution, protein shouldbe stored at 2-4°C for one week and for six months at -20°C to -80°C. Add acarrier protein (0.1% HSA or BSA) as a stabilizer for long term storage.Avoid repeated freeze-thaw cycles.
OfficialSymbol	GCG

GENE INFORMATION

Gene Name	GCGglucagon [Homo sapiens]
Synonyms	GCG; glucagon;GLP1; GLP2; GRPP; OTTHUMP00000204570; glucagon-like peptide 1; glucagon-likepeptide 2; glicentin-related polypeptide; Glicentin; Oxyntomodulin
Gene ID	2641
mRNA Refseq	NM_002054
Protein Refseq	NP_002045
MIM	138030
UniProt ID	P01275
Chromosome Location	2q36-q37
Pathway	Class B/2 (Secreting family receptors); Diabetespathways; FOXA1 transcription factor

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	network; G alpha (q) signaling events; GPCRdownstream signaling; Glucagon signaling in metabolic regulation; Glucagon-typeligand receptors; Incretion Synthesis, Secretion, and Inactivation; Integrationof energy metabolism; Metabolism; Regulation of Insulin Secretion; SignalTransduction; Signaling by GPCR; Synthesis, Secretion, and Deacylation ofGhrelin; Synthesis, Secretion, and Inactivation of Glucagon-like Peptide-1(GLP-1)
Function	hormone activity; receptorbinding;glucagon receptor binding

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