GCG
Native Human Glucagon-Like Peptide 1 (aa 7-36)

Catalog No.	CSI14048	**Quantity:**	1.0 mg
	CSI14049		5 mg
	CSI14050		100 mg

Alternate Names: GLP1, GLP2, GRPP, glicentin-related polypeptide, glucagon-like peptide 1, glucagon-like peptide 2

Description: Glucagon-like peptide-1 (GLP-1) is derived from the transcription product of the proglucagon gene. The major source of GLP-1 in the body is the intestinal L cell that secretes GLP-1 as a guthormone. The biologically active forms of GLP-1 are: GLP-1-(7 -37) and GLP-1-(7-36) NH2. GLP-1 secretion by L cells is dependent on the presence of nutrients in the lumen of the small intestine. The secretagogues (agents that causes or stimulates secretion) of this hormone include major nutrients like carbohydrate, protein and lipid. Once in the circulation, GLP-1 has a half life of less than 2 minutes, due to rapid degradation by the enzyme dipeptidyl peptidase-4.
GLP-1 possesses several physiological properties that make it a subject of intensive investigation as a potential treatment of diabetes mellitus. The known physiological functions of GLP-1 include: Increases insulin secretion from the pancreas in a glucose-dependent manner, decreases glucagon secretion from the pancreas, increases beta cells mass and insulin gene expression, inhibits acid secretion and gastric emptying in the stomach, decreases food intake by increasing satiety. Glucagon Like Peptide-1 is a single, non-glycosylated, polypeptide chain containing 30 amino acids.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Gene ID: 2641

Molecular Mass: 3298.7 Dalton

Formulation: The GLP-1 peptide was lyophilized with no additives.

Purification: The GLP-1 is purified by proprietary chromatographic techniques.

Biological Activity:
1. Regulates Glucose levels rapidly
2. Reduces Insulin resistance
3. Reduces Glucagon
4. Reduces HbA1c
5. Stimulates beta cell growth which stimulates insulin production

Amino Acid Sequence: The sequence of the first five N-terminal amino acids was determined and was found to be His-Ala-Glu-Gly-Thr.

Reconstitution: It is recommended to reconstitute the lyophilized Glucagon Like Peptide-1 in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Storage & Stability: Lyophilized Glucagon Like Peptide-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GLP-1 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.

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