



Product Datasheet

Product Name	Human Glucagon Like Peptide-1
Cata No	CB500732
Source	GLP1, GLP2, GRPP.
Synonyms	

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 and having a molecular mass of 3298.7 Dalton. The GLP-1 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

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

Purity

Greater than 98.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Formulation

The GLP-1 peptide was lyophilized with no additives.

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.

Sequence

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

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