

# Recombinant Human Glucagon Like Peptide-1/7-36 (GLP-1)

## Certificate of Analysis and Data Sheet

➤ <b>Source:</b> E.Coli	➤ <b>Catalog No.</b> HOR-236
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### ➤ **Background:**

GLP-1 is an incretion hormone, which has been shown to stimulate secretion of insulin in the presence of elevated blood glucose concentrations, but not during periods of low blood glucose concentrations (hypoglycemia). GLP-1 is released from gut endocrine cells in response to nutrient ingestion. The hormone is a physiologic mediator of satiety and regulates energy absorption and disposal. GLP-1 is an insulinotropic hormone that has the ability to render pancreatic beta cells glucose-competent. It has been used in the therapy of type-2 diabetes. GLP-1 has cytokine activity, although it is not classified as such due its small size GLP-1 enhances cell differentiation, plays a role in tissue regeneration, and mediates cytoprotection.

### ➤ **Description :**

Recombinant Human Glucagon Like Peptide-1 produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 30 amino acids and having a molecular mass of 3298.7Dalton.  
Human GLP-1 is purified by proprietary chromatographic techniques.

### ➤ **Physical Appearance:**

Sterile Filtered White Lyophilized (freeze-dried) powder.

### ➤ **Formulation:**

GLP-1 (1mg/ml) was lyophilized after extensive dialyses against 0.1 mg sodium phosphate monobasic & 1.6mg sodium phosphate dibasic.

### ➤ **Solubility:**

It is recommended to reconstitute the lyophilized Human GLP-1 in sterile 18MO-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### ➤ **Stability:**

Lyophilized Human GLP-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution Human 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 avoid freeze-thaw cycles.**

➤ **Purity:**

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

➤ **Amino acid sequence:**

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

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm.

2. Analysis by RP-HPLC, using a calibrated solution of GLP-1 as a Reference Standard.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of Human GLP.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.