

### RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet

# Glucagon

**Catalog No.** 228-10549

# **Synonyms**

GLP1, GLP2, GRPP.

#### Introduction

Glucagon is an important hormone involved in carbohydrate metabolism. The hormone is synthesized and secreted from alpha cells of the Islets of Langerhans, which are located in the endocrine portion of the pancreas. Glucagon is released when the glucose level in the blood is low (hypoglycemia), causing the liver to convert stored glycogen into glucose and release it into the bloodstream. The action of glucagon is thus opposite to that of insulin, which instructs the body's cells to take in glucose from the blood in times of satiation.

Glucagon is beneficial for the culture of some cell types. It has been used in some biochemical regulation studies of glycogenolysis in hepatocytes. It has been also been found to induce DNA replication in primary cultures of adult rat hepatocytes when used in combinations with EGF and Insulin. Glucagon increases the blood glucose concentration by promoting rapid breakdown of liver glycogen, and also acts to relax smooth muscle such as the gastrointestinal tract.

# Description

Glucagon Human Synthetic peptide is a single, non-glycosylated, polypeptide chain containing 29 amino acids and having a molecular mass of 3485 Dalton.

The Glucagon is purified by proprietary chromatographic techniques.

# Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

#### **Formulation**

Glucagon peptide was formulated with no additives.

# Solubility

It is recommended to reconstitute the lyophilized Glucagon sterile  $18M\Omega$ -cm H2O not less than 100  $\mu$ g/ml, which can then be further diluted to other aqueous solutions.



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# Stability

Glucagon although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Glucagon 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.

# **Purity**

Greater than 98.0% as determined by

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

# 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.