



Product Datasheet

Product Name	Glucagon Human Recombinant
Cata No	CB500685
Source	<i>Escherichia Coli.</i>
Synonyms	GLP1, GLP2, GRPP.

Description

Glucagon is an important hormone involved in carbohydrate metabolism. The hormone is synthesized and secreted from alpha cells (α -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.

Glucagon Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 29 amino acids and having a molecular mass of 3483 Dalton.

The Glucagon is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried)

powder.

Biological Activity

The activity is determined by comparing, under certain conditions, the hyperglycemic effect it produces with that produced by the international standard or by reference preparation calibrated in IU and is found to be 1 IU/mg

Purity

Greater than 98.0% as determined by:

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

Formulation

Each mg of recombinant Glucagon was formulated with 49 mg of lactose.

Stability

Lyophilized 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.

Sequence

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

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