

Product Data Sheet

Cat# SP-82512-1

Description: [Des-His1, Glu9] - Glucagon (1 - 29), amide [Ser-Gln-Gly-Thr-Phe-Thr-Ser-Glu-Tyr-Ser-Lys-Tyr-Leu-Asp-Ser-Arg-Arg-Ala-Gln-Asp-Phe-Val-Gln-Trp-Leu-Met-Asn-Thr-NH₂; MW: 3358.72]

Size: 1 mg

Purity: >95%

Store: Desiccated at -20oC.

Glucagon a peptide (non steroid) hormone secreted in the A cells of the islets of Langherans, plays a key role in glucose metabolism and homeostasis. Glucagon elevates the amount of glucose in the blood by promoting gluconeogenesis and glycogenolysis.

Glucagon is generated from the cleavage of proglucagon by proprotein convertase 2 in pancreatic islet α cells. In intestinal L cells, proglucagon is cleaved to the alternate products glicentin, GLP-1 (an incretin), IP-2, and GLP-2 (promotes intestinal growth).

Glucose is stored in the liver in the form of glycogen, which is a polymer made up of glucose molecules. Liver cells (hepatocytes) have glucagon receptors. When glucagon binds to the glucagon receptors, the liver cells convert the glycogen polymer into individual glucose molecules, and release them into the bloodstream, in a process known as glycogenolysis. Glucagon then encourages the liver and kidney to synthesize additional glucose by gluconeogenesis. Glucagon turns off glycolysis in the liver, causing glycolytic intermediates to be shuttled to gluconeogenesis.

Glucagon also regulates the rate of glucose production through lipolysis. Proglucagon is processed in glucagon, GLP-1, GLP-2, glicentin and oxyntomodulin depending on tissue. Glucagon is used to treat severe hypoglycemia in insulin-dependent diabetics under the names Glucagon (Eli Lilly) and GlucaGen or Glucagon Novo Nordisk (Novo Nordisk).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.

References:

Layden (2010) *Nature Education* 3 (9): 13; Xu E (2006) *Cell Metab.* 3 (1): 47–58.

Related items:

Catalog#	ProdDescription
GLP15-P	Human Glucagon like peptide 1 (GLP-1/GLP1) Control/blocking peptide #1
GLP16-P-500	Human Glucagon like peptide 1 (GLP-1/GLP1, 1-36) amide
GLP17-P-500	Human Glucagon like peptide 1 (GLP-1/GLP1, 7-36) amide
GLP18-P-500	Human Glucagon like peptide 1, (GLP-1/GLP1, Ser8, 7-36) amide
GLP19-P-500	Human Glucagon like peptide 1 (GLP-1/GLP1, 7-37)
RP-1506	Human Glucagon Like Peptide-1 (GLP-1/GLP1, 7-36)
RP-1507	Glucagon
RP-588	Recombinant Human Glucagon Like Peptide-1 (GLP-1/GLP1, 7-36)
RP-589	Recombinant Human Glucagon
SP-51018-1	Glucagon-Like Peptide I (GLP1/GLP-1, 7-37); GLP-1 (7-37)
SP-52256-1	Glucagon, Human
SP-55287	Glucagon-LikePeptide II MW: 3766.2]
SP-55288-1	Glucagon-Like Peptide II MW: 3796.22]
SP-55292-1	Glucagon-like Peptide II MW: 3922.38]
SP-55367-1	Glucagon (19-29) 1352.54]
SP-71120-1	Glucagon - Like Peptide 1 (MW: 4111.53)
SP-82512-1	[Des-His1, Glu9] - Glucagon (1 - 29), amide MW: 3358.72]
SP-88143-1	Biotin - Glucagon (1 - 29), bovine, human, porcine (MW: 3709.12)
SP-88144-1	Biotin - Glucagon- like Peptide 1 (7 - 36), amide, human (MW: 3524.00)
SP-88146-5	Glucagon- LikePeptide 1 (GLP1/GLP-1, 7 - 17) (MW: 4421.92)
SP-89071-1	[Des-Thr5]-Glucagon MW: 3381.72]
SP-89072-1	[Des-Thr7]-Glucagon MW: 3381.72]
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