

PRODUCT INFORMATION



Glucagon (hydrochloride)

Item No. 24204

CAS Registry No.: 19179-82-9

Formal Name: glucagon (swine), hydrochloride

MF: $C_{153}H_{225}N_{43}O_{49}S \cdot XHCl$

FW: 3,482.8

Purity: $\geq 95\%$

Supplied as: A solid

Storage: $-20^{\circ}C$

Stability: ≥ 4 years

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

• XHCl

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Glucagon (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the glucagon (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Glucagon (hydrochloride) is soluble in the organic solvent formic acid at a concentration of approximately 10 mg/ml.

Description

Glucagon is a peptide hormone produced from proglucagon in pancreatic α cells that has a role in the regulation of glucose metabolism.¹ Pulsatile application of glucagon to rat hepatocytes stimulates glucose production *ex vivo*.² It also stimulates glucose output from perfused rat livers *via* increases in gluconeogenesis and glycogenolysis and decreases in glycolysis as well as increases plasma glucose levels in rats.^{1,3} Glucagon secretion is suppressed in response to food intake in normal rats and humans but is maintained or elevated in humans with type 2 diabetes.¹

References

1. Jiang, G. and Zhang, B.B. Glucagon and regulation of glucose metabolism. *Am. J. Physiol. Endocrinol. Metab.* **284(4)**, E671-E678 (2003).
2. Weigle, D.S. and Goodner, C.J. Evidence that the physiological pulse frequency of glucagon secretion optimizes glucose production by perfused rat hepatocytes. *Endocrinology* **118(4)**, 1606-1613 (1986).
3. Doi, Y., Iwai, M., Matsuura, B., *et al.* Glucagon attenuates the action of insulin on glucose output in the liver of the Goto-Kakizaki rat perfused in situ. *Pflugers Arch.* **442(4)**, 537-541 (2001).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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