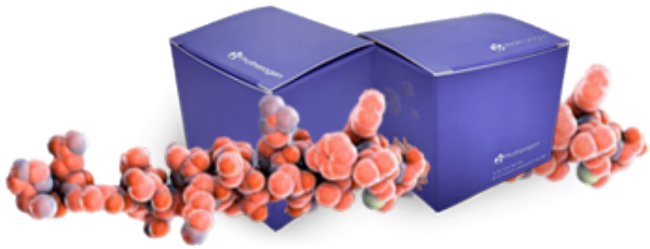
Protheragen
Obesity



Rat glucagon (GCG) ELISA kit (1.0 pg/mL)

Cat. No.:	0126WXX-80
Assay Type:	Quantitative competitive ELISA
Target Species:	Rat
Assay Target:	GCG
Size:	48T; 96T

This product is for research use only and is not intended for diagnostic use.

Product Overview

Description

Rat glucagon (GCG) ELISA kit (1.0 pg/mL) is an ELISA-based *in vitro* resea rch tool designed specifically for the quantitative detection of GCG in rat samp les with a minimum detectable dose (sensitivity) of 1.0 pg/mL. The kit is highly sensitive and easy to use.

Assay Principle

This kit employs a competitive enzyme immunoassay technique with a polyclonal an ti-GCG antibody pre-coated onto the microplate. GCG from the sample and a fixed amount of GCG-HRP conjugate compete for binding sites on the antibody. After a o ne-hour incubation, unbound components are washed away. A substrate is added, pr oducing a blue color that turns yellow upon the addition of a stop solution. The intensity is measured at 450 nm. The color intensity is inversely proportional to the GCG concentration in the sample, with higher sample concentrations result ing in a lighter color.

Background

Glucagon is a hormone secreted by A cells of the islets of Langerhans, playing a pivotal role in glucose metabolism and homeostasis. Its primary function is to regulate blood glucose levels by promoting gluconeogenesis and inhibiting glycol ysis. The dynamic equilibrium between glucagon and insulin is crucial for mainta ining healthy metabolism. The detection of glucagon and analysis of its associat ed pathways provide key insights into understanding and treating obesity.

Synonyms

GLP1; GLP2; GRPP; Glicentin-related polypeptide; Glucagen; Oxyntomodulin; Incret in hormone; GC

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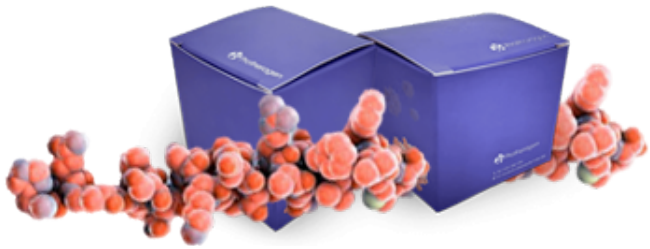

Formula Weight	20,909 Da
Applications	Rat glucagon (GCG) ELISA kit (1.0 pg/mL) is used to quantify GCG in serum, plasm a, cell culture supernatants, body fluid, and tissue homogenate of rat, providin g data to support research in a wide range of areas, including endocrinology, ob esity, metabolism, and others.
Research Area	Endocrinology; Obesity; Metabolism

Specification

Sample Type	Serum; Plasma; Cell culture supernatants; Body fluid; Tissue homogenate
Detection Range	100-2500 pg/mL
Sensitivity	1.0 pg/mL
Precision (Intra-assay)	CV<10%
Precision (Inter-assay)	CV<12%
Cross-reactivity	No significant cross-reactivity or interference was observed.
Reaction Time	1.5 h
Recovery	92-101%
Storage	Store at 2-8°C.

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