

Product Name: GCG Rabbit Polyclonal Antibody
Catalog #: APRab11346



Summary

Production Name	GCG Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF, WB, ELISA
Reactivity	Human, Mouse, Rat, Monkey

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	GCG
Alternative Names	GCG; Glucagon
Gene ID	2641.0
SwissProt ID	P01275. The antiserum was produced against synthesized peptide derived from human Glucagon. AA range: 61-110

Application

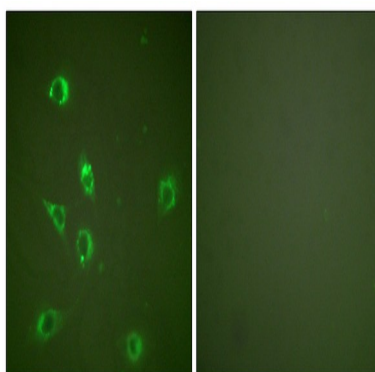
Dilution Ratio	WB 1:500 - 1:2000. IF 1:200 - 1:1000. ELISA: 1:40000. Not yet tested in other applications.
Molecular Weight	25kD

Background

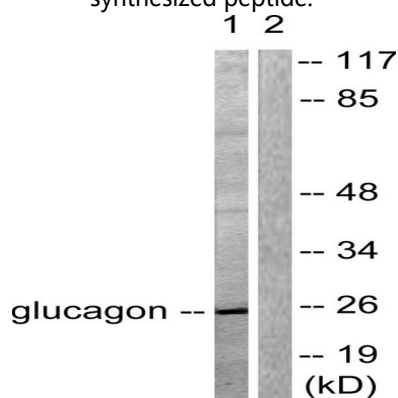
The protein encoded by this gene is actually a preproprotein that is cleaved into four distinct mature peptides. One of these, glucagon, is a pancreatic hormone that counteracts the glucose-lowering action of insulin by stimulating glycogenolysis and gluconeogenesis. Glucagon is a ligand for a specific G-protein linked receptor whose signalling pathway controls cell proliferation. Two of the other peptides are secreted from gut endocrine cells and promote nutrient absorption through distinct mechanisms. Finally, the fourth peptide is similar to glicentin, an active enteroglucagon. [provided by RefSeq, Jul 2008],function:Glicentin may modulate gastric acid secretion and the gastro-pyloro-duodenal activity. May play an important role in intestinal mucosal growth in the early period of life.,function:GLP-1 is a potent stimulator of glucose-dependent insulin release. Play important roles on gastric motility and the suppression of plasma glucagon levels. May be involved in the suppression of satiety and stimulation of glucose disposal in peripheral tissues, independent of the actions of insulin. Have growth-promoting activities on intestinal epithelium. May also regulate the hypothalamic pituitary axis (HPA) via effects on LH, TSH, CRH, oxytocin, and vasopressin secretion. Increases islet mass through stimulation of islet neogenesis and pancreatic beta cell proliferaton. Inhibits beta cell apoptosis.,function:GLP-2 stimulates intestinal growth and up-regulates villus height in the small intestine, concomitant with increased crypt cell proliferation and decreased enterocyte apoptosis. The gastrointestinal tract, from the stomach to the colon is the principal target for GLP-2 action. Plays a key role in nutrient homeostasis, enhancing nutrient assimilation through enhanced gastrointestinal function, as well as increasing nutrient disposal. Stimulates intestinal glucose transport and decreases mucosal permeability.,function:Glucagon plays a key role in glucose metabolism and homeostasis. Regulates blood glucose by increasing gluconeogenesis and decreasing glycolysis. A counterregulatory hormone of insulin, raises plasma glucose levels in response to insulin-induced hypoglycemia. Plays an important role in initiating and maintaining hyperglycemic conditions in diabetes.,function:Oxyntomodulin significantly reduces food intake. Inhibits gastric emptying in humans. Suppression of gastric emptying may lead to increased gastric distension, which may contribute to satiety by causing a sensation of fullness.,induction:Glucagon release is stimulated by hypoglycemia and inhibited by hyperglycemia, insulin, and somatostatin. GLP-1 and GLP-2 are induced in response to nutrient ingestion.,miscellaneous:In the glucagon antagonist, His-53 and Phe-58 are missing. This antagonist has been successfully utilized to reduce glucose concentration in vivo.,online information:Clinical information on Eli Lilly glucagon products,pharmaceutical:Available under the names Glucagon (Eli Lilly) and GlucaGen or Glucagon Novo Nordisk (Novo Nordisk). Used to treat severe hypoglycemia in insulin-dependent diabetics.,PTM:Proglucagon is post-translationally processed in a tissue-specific manner in pancreatic A cells and intestinal L cells. In pancreatic A cells, the major bioactive hormone is glucagon cleaved by PCSK2/PC2. In the intestinal L cells PCSK1/PC1 liberates GLP-1, GLP-2, glicentin and oxyntomodulin. GLP-1 is further N-terminally truncated by post-translational processing in the intestinal L cells resulting in GLP-1(7-37) GLP-1-(7-36)amide. The C-terminal amidation is neither important for the metabolism of GLP-1 nor for its effects on the endocrine pancreas.,similarity:Belongs to the glucagon family.,tissue specificity:Glucagon is secreted in the A cells of the islets of Langerhans. GLP-1, GLP-2, oxyntomodulin and glicentin are secreted from enteroendocrine cells throughout the gastrointestinal tract. GLP1 and GLP2 are also secreted in selected neurons in the brain.,

Research Area

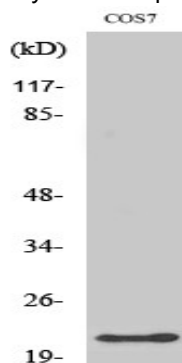
Image Data



Immunofluorescence analysis of NIH/3T3 cells, using Glucagon Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from COS7 cells, using Glucagon Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using GCG Polyclonal Antibody

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Note

For research use only.