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GCG Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6515A

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P01275
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19443
Calculated MW	20909
Antigen Region	25-54

Additional Information

Gene ID	2641
Other Names	Glucagon, Glicentin, Glicentin-related polypeptide, GRPP, Oxyntomodulin, OXM, OXY, Glucagon, Glucagon-like peptide 1, GLP-1, Incretin hormone, Glucagon-like peptide 1(7-37), GLP-1(7-37), Glucagon-like peptide 1(7-36), GLP-1(7-36), Glucagon-like peptide 2, GLP-2, GCG
Target/Specificity	This GCG antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 25-54 amino acids from the N-terminal region of human GCG.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GCG Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GCG (HGNC:4191)

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. Binds to and activates the glucagon receptor GCGR, which couples to the G(s) G protein and elevates intracellular cAMP, triggering downstream metabolic responses (PubMed:32193322).
Cellular Location	Secreted.
Tissue Location	[Glucagon]: Secreted in the A cells of the islets of Langerhans. [Glucagon-like peptide 2]: Secreted from enteroendocrine cells throughout the gastrointestinal tract. Also secreted in selected neurons in the brain [Oxyntomodulin]: Secreted from enteroendocrine cells throughout the gastrointestinal tract

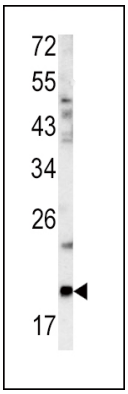
Background

GCG 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.

References

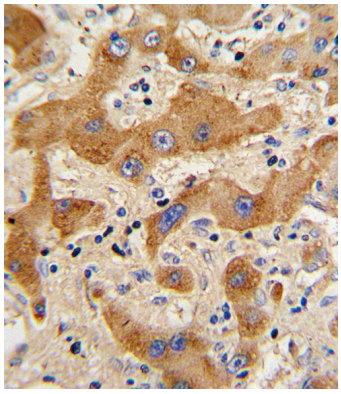
Jacobo,S.M., J. Pharmacol. Exp. Ther. 330 (1), 283-293 (2009)
Root-Bernstein,R.J. Mol. Recognit. 22 (3), 177-187 (2009)

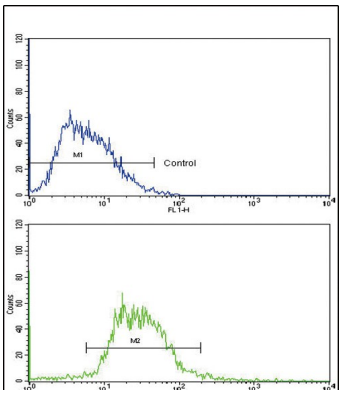
Images



Western blot analysis of GCG antibody (N-term) (Cat.# AP6515a) in mouse bladder tissue lysates (35ug/lane). GCG (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human hepatocarcinoma reacted with GCG Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.





Flow cytometric analysis of HepG2 cells using GCG Antibody (N-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.