abcam

ab189279

Anti-Glucagon antibody - N-terminal

Rabbit Polyclonal Glucagon antibody. N-terminal. Suitable for Flow Cyt (Intra), WB, IHC-P and reacts with Human, Mouse samples. Cited in 3 publications. Immunogen corresponding to Synthetic Peptide within Human Glucagon aa 1-100 conjugated to Keyhole Limpet Haemocyanin.

Lab Essentials

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.4 Preservative: 0.09% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human Glucagon aa 1-100 conjugated to Keyhole Limpet Haemocyanin. The exact immunogen used to generate this antibody is proprietary information. Database link P01275
Purification technique	Precipitation Ammonium Sulphate
Concentration	1.8 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/50

Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Expected

Species	Human
Dilution info	1/1000
Notes	-

IHC-P

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information Glucagon

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). Glucagon-like peptide 1. Potent stimulator of glucose-dependent insulin release (PubMed:22037645, PubMed:40446798). Also stimulates insulin release in response to IL6 (PubMed:22037645). Plays important roles on gastric motility and the suppression of plasma glucagon levels (PubMed:10605628, PubMed:14719035, PubMed:12554744). May be involved in the suppression of satiety and stimulation of glucose disposal in peripheral tissues, independent of the actions of insulin (PubMed:10605628, PubMed:14719035, PubMed:12554744). Has growth-promoting activities on intestinal epithelium (PubMed:10605628, PubMed:14719035, PubMed:12554744). May also regulate the hypothalamic pituitary axis (HPA) via effects on LH, TSH, CRH, oxytocin, and vasopressin secretion (PubMed:10605628, PubMed:14719035, PubMed:12554744). Increases islet mass through stimulation of islet neogenesis and pancreatic beta cell proliferation (PubMed:10605628, PubMed:14719035, PubMed:12554744). Inhibits beta cell apoptosis (PubMed:10605628, PubMed:14719035, PubMed:12554744). Glucagon-like peptide 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. 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. 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.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Glucagon also known as the “hunger hormone" is a 29-amino acid peptide hormone with a mass of approximately 3.5 kDa. It plays an important role in glucose metabolism and regulation of blood sugar levels. The human pancreas specifically the alpha cells located in the islets of Langerhans synthesizes and secretes glucagon. This hormone binds to glucagon receptors which are widely expressed across tissues including the liver and kidney where it initiates a cascade of signaling events.
Biological function summary	Glucagon plays a central role in maintaining glucose homeostasis. It increases blood glucose by promoting gluconeogenesis and glycogenolysis in the liver. Though glucagon mainly acts independently it exhibits significant interactions with other metabolic hormones such as insulin. This interaction helps balance blood sugar levels as glucagon and insulin work in opposition to ensure optimal blood glucose regulation.
Pathways	Glucagon primarily impacts the cAMP signaling pathway significantly increasing intracellular cAMP levels. This pathway initiates a complex series of downstream events including increased enzyme activity for gluconeogenesis and glycogen breakdown in the liver. Glucagon also cross-talks with insulin signaling pathways enabling the intertwined regulation of metabolism through these hormones and maintaining glucose balance.
Associated diseases and disorders	Glucagon is closely linked to diabetes and hyperglycemia. Individuals with diabetes often exhibit dysregulated glucagon secretion leading to unstable blood sugar levels. Glucagon interacts with insulin in the pathology of diabetes where an improper balance between these hormones can exacerbate the disease. The understanding of glucagon's role in these conditions makes it a target for new therapeutic strategies including recombinant glucagon treatments and assays.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

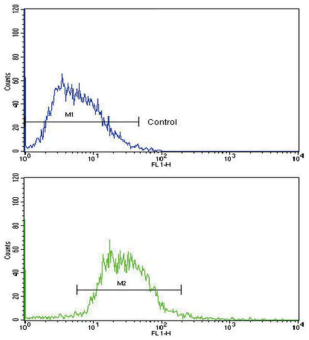
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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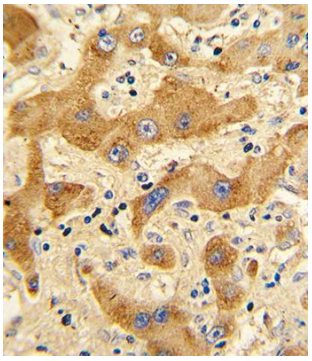
3 product images



Flow Cytometry (Intracellular) - Anti-Glucagon antibody - N-terminal (ab189279)

Glucagon Flow Cytometry (Intracellular) staining using rabbit Anti-Glucagon antibody

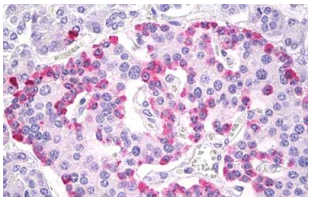
Intracellular flow cytometric analysis of HepG2 cells labeling Glucagon with ab189279 at 1/10 dilution (bottom histogram) compared to negative control cells (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucagon antibody - N-terminal (ab189279)

Glucagon Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Glucagon antibody

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human hepatocarcinoma tissue labeling Glucagon with ab189279 at 10 µg/ml, followed by peroxidase-conjugated secondary antibody and DAB staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucagon antibody - N-terminal (ab189279)

Glucagon Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Glucagon antibody

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human pancreas, islets of Langerhans labeling Glucagon with ab189279 at 10 µg/ml.

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