

Glucagon (FL-180): sc-13091

BACKGROUND

Glucagon is a pancreatic hormone that functions as an antagonist to Insulin, stimulating the conversion of glycogen to glucose and increasing blood sugar levels. Glucagon-like peptide-1 (GLP-1), Glucagon-like peptide-2 (GLP-2), VIP (vasoactive intestinal peptide) and PACAP (pituitary adenylate cyclase activating polypeptide) are members of the glucagon family of hormones. GLP-1 functions as a transmitter in the central nervous system, inhibiting feeding and drinking behavior, whereas GLP-2 is a stimulator of intestinal epithelial growth. VIP causes vasodilation resulting in the lowering of blood pressure. PACAP is abundant in the hypothalamus and has been shown to increase the synthesis of several hormones, including growth hormone.

CHROMOSOMAL LOCATION

Genetic locus: GCG (human) mapping to 2q24.2; Gcg (mouse) mapping to 2 C1.3.

SOURCE

Glucagon (FL-180) is a rabbit polyclonal antibody raised against amino acids 1-180 representing full length Glucagon of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Glucagon (FL-180) is recommended for detection of Proglucagon, Glucagon, GLP-1 and GLP-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Glucagon (FL-180) is also recommended for detection of Proglucagon, Glucagon, GLP-1 and GLP-2 in additional species, including equine, canine and bovine.

Molecular Weight of Glucagon: 3.4 kDa.

Molecular Weight of Proglucagon: 19 kDa.

Positive Controls: mouse pancreas extract: sc-364244 or NIH/3T3 whole cell lysate: sc-2210.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

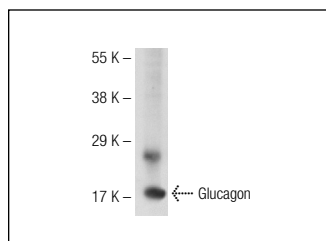
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

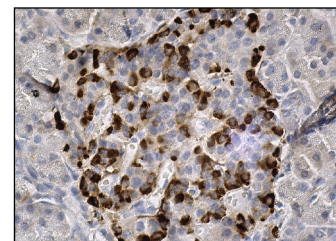
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Glucagon (FL-180): sc-13091. Western blot analysis of Glucagon expression in mouse pancreas tissue extract.



Glucagon (FL-180): sc-13091. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of islets of Langerhans.

SELECT PRODUCT CITATIONS

- Thyssen, S., et al. 2006. Ontogeny of regeneration of β -cells in the neonatal rat after treatment with streptozotocin. *Endocrinology* 147: 2346-2356.
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- Lavine, J.A., et al. 2008. Overexpression of pre-pro-cholecystokinin stimulates β -cell proliferation in mouse and human islets with retention of islet function. *Mol. Endocrinol.* 22: 2716-2728.
- Gao, X., et al. 2008. Transplantation of bone marrow derived cells promotes pancreatic islet repair in diabetic mice. *Biochem. Biophys. Res. Commun.* 371: 132-137.
- Di Bella, A., et al. 2009. An appraisal of intermediate filament expression in adult and developing pancreas: vimentin is expressed in α cells of rat and mouse embryos. *J. Histochem. Cytochem.* 57: 577-586.
- Tamagawa, T., et al. 2009. Induced *in vitro* differentiation of pancreatic-like cells from human amnion-derived fibroblast-like cells. *Hum. Cell* 22: 55-63.
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- Davis, D.B., et al. 2010. FoxM1 is up-regulated by obesity and stimulates β -cell proliferation. *Mol. Endocrinol.* 24: 1822-1834.
- Nakashima, K., et al. 2012. Self-inducible secretion of glucagon-like peptide-1 (GLP-1) that allows MIN6 cells to maintain Insulin secretion and insure cell survival. *Mol. Cell. Endocrinol.* 349: 281-288.



Try **Glucagon (C-11): sc-514592** or **Glucagon (K79bB10): sc-57171**, our highly recommended monoclonal alternatives to Glucagon (FL-180). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Glucagon (C-11): sc-514592**.