SANTA CRUZ BIOTECHNOLOGY, INC.

Glucagon Receptor (H-57): sc-66912

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Glucagon, a pancreatic hormone, functions as an antagonist to Insulin, stimulating the conversion of glycogen to glucose and increasing blood sugar levels. GLP-1 functions as a transmitter in the central nervous system, inhibiting feeding and drinking behavior. Both Glucagon and GLP-1 function through their specific binding to the Glucagon Receptor or GLP-1R, respectively. The Glucagon Receptor shows expression in liver, kidney and adipose tissue. The GLP-1R expression primarily localizes to areas of the hypothalamus involved in feeding behavior. Both receptors and their ligands serve as potential targets for the therapeutic treatment of diabetes.

REFERENCES

1. Iwanij, V., et al. 1990. Characterization of the GLP-1R and its functional domains using monoclonal antibodies. J. Biol. Chem. 265: 21302-21308.
2. Rouille, Y., et al. 1995. Differential processing of proglucagon by the subtilisin-like prohormone convertases PC2 and PC3 to generate either Glucagon or Glucagon-like peptide. J. Biol. Chem. 270: 26488-26496.
3. Scrocchi, L.A., et al. 1996. Glucose intolerance but normal satiety in mice with a null mutation in the Glucagon-like peptide 1 receptor gene. Nat. Med. 2: 1254-1258.
4. Bollen, M., et al. 1998. Specific features of glycogen metabolism in the liver. Biochem. J. 336: 19-31.
5. Jiang, G., et al. 2003. Glucagon and regulation of glucose metabolism. Am. J. Physiol. Endocrinol. Metab. 284: E671-E678.
6. Gromada, J., et al. 2004. Glucagon-like peptide-1: regulation of Insulin secretion and therapeutic potential. Basic Clin. Pharmacol. Toxicol. 95: 252-262.

CHROMOSOMAL LOCATION

Genetic locus: GCGR (human) mapping to 17; Gcgr (mouse) mapping to 11 E2.

SOURCE

Glucagon Receptor (H-57) is a rabbit polyclonal antibody raised against amino acids 86-142 mapping within an N-terminal extracellular domain of Glucagon Receptor 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.

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.

APPLICATIONS

Glucagon Receptor (H-57) is recommended for detection of Glucagon Receptor 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Glucagon Receptor (H-57) is also recommended for detection of Glucagon Receptor in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Glucagon Receptor siRNA (h): sc-45765, Glucagon Receptor siRNA (m): sc-45766, Glucagon Receptor shRNA Plasmid (h): sc-45765-SH, Glucagon Receptor shRNA Plasmid (m): sc-45766-SH, Glucagon Receptor shRNA (h) Lentiviral Particles: sc-45765-V and Glucagon Receptor shRNA (m) Lentiviral Particles: sc-45766-V.

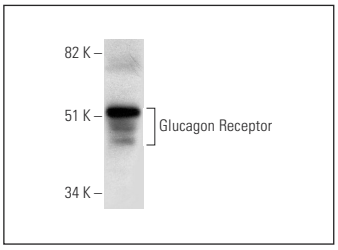
Molecular Weight of Glucagon Receptor: 62 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Glucagon Receptor (H-57): sc-66912. Western blot analysis of Glucagon Receptor expression in Caki-1 whole cell lysate.

RESEARCH USE

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