

# Glucagon Receptor (I-16): sc-34638

## 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

- Iwanij, V., et al. 1990. Characterization of the GLP-1R and its functional domains using monoclonal antibodies. *J. Biol. Chem.* 265: 21302-21308.
- 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.
- 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.
- Bollen, M., et al. 1998. Specific features of glycogen metabolism in the liver. *Biochem. J.* 336: 19-31.
- Jiang, G., et al. 2003. Glucagon and regulation of glucose metabolism. *Am. J. Physiol. Endocrinol. Metab.* 284: E671-E678.

## CHROMOSOMAL LOCATION

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

## SOURCE

Glucagon Receptor (I-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an 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.

Blocking peptide available for competition studies, sc-34638 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

Glucagon Receptor (I-16) 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 (I-16) is also recommended for detection of Glucagon Receptor in additional species, including equine and canine.

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.

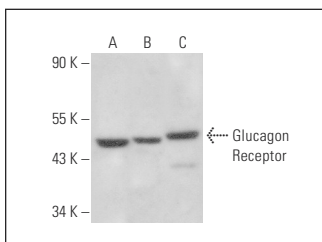
Molecular Weight of Glucagon Receptor: 62 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, COLO 205 whole cell lysate: sc-364177 or NIH/3T3 whole cell lysate: sc-2210.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Glucagon Receptor (I-16): sc-34638. Western blot analysis of Glucagon Receptor expression in COLO 205 (A), Hep G2 (B) and NIH/3T3 (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Gonzalez-Muñoz, C., et al. 2008. Glucagon increases contractility in ventricle but not in atrium of the rat heart. *Eur. J. Pharmacol.* 587: 243-247.

## RESEARCH USE

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