

# Glut10 (G-20): sc-50941

## BACKGROUND

Glucose serves as the major energy substrate of mammalian cells and is fundamental to metabolism. Glucose passage across cell membranes is mediated by a family of transporters termed glucose transporters, or Gluts, which are characterized by the presence of 12 membrane-spanning helices. The Glut family is divided into three subfamilies: class I (previously known as glucose transporters), which includes Glut1, Glut2, Glut3 and Glut4; class II (previously known as fructose transporters), which includes Glut5, Glut7, Glut9 and Glut11; and class III, which includes Glut6, Glut8, Glut10, Glut12 and the myo-inositol transporter HMIT1. Glut10 is a 541 amino acid facilitative glucose transporter expressed in high amounts in liver and pancreas. It contains 12 transmembrane domains, with a hydrophilic intracellular loop between helices 6 and 7, and a potential N-linked glycosylation site, with a large extracellular loop between helices 9 and 10. The gene for Glut 10, SLC2A10, maps to chromosome 20q13.1, a region that is linked to type 2 diabetes.

## REFERENCES

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- Andersen, G., Rose, C.S., Hamid, Y.H., Drivsholm, T., Borch-Johnsen, K., Hansen, T. and Pedersen, O. 2003. Genetic variation of the Glut10 glucose transporter (SLC2A10) and relationships to type 2 diabetes and intermediary traits. *Diabetes* 52: 2445-2448.

## CHROMOSOMAL LOCATION

Genetic locus: Slc2a10 (mouse) mapping to 2 H3.

## SOURCE

Glut10 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of Glut10 of mouse origin.

## STORAGE

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

## RESEARCH USE

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

## 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-50941 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Glut10 (G-20) is recommended for detection of Glut10 of mouse 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).

Suitable for use as control antibody for Glut10 siRNA (m): sc-60698, Glut10 shRNA Plasmid (m): sc-60698-SH and Glut10 shRNA (m) Lentiviral Particles: sc-60698-V.

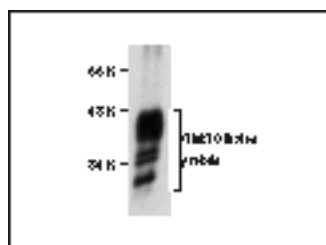
Molecular Weight of Glut10: 57 kDa.

Positive Controls: Mouse liver extract: sc-2256.

## 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



Glut10 (G-20) sc-50941 Western blot analysis of mouse liver extract. Glut10 (G-20) sc-50941

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.