

Glut10 (H-96): sc-99069

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 20q13.12, a region that is linked to type 2 diabetes.

REFERENCES

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- Joost, H., et al. 2001. The extended Glut-family of sugar/polyol transport facilitators: nomenclature, sequence characteristics and function of its novel members. *Mol. Membr. Biol.* 18: 247-256.
- McVie-Wylie, A.J., et al. 2001. Molecular cloning of a novel member of the Glut family of transporters, SLC2A10 (Glut10), localized on chromosome 20q13.1: a candidate gene for NIDDM susceptibility. *Genomics* 72: 113-117.
- Dawson, P.A., et al. 2001. Sequence and functional analysis of Glut10: a glucose transporter in the type 2 diabetes-linked region of chromosome 20q12-13.1. *Mol. Genet. Metab.* 74: 186-199.
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CHROMOSOMAL LOCATION

Genetic locus: SLC2A10 (human) mapping to 20q13.12.

SOURCE

Glut10 (H-96) is a rabbit polyclonal antibody raised against amino acids 321-416 mapping within an extracellular domain of Glut10 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.

APPLICATIONS

Glut10 (H-96) is recommended for detection of Glut10 of 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).

Suitable for use as control antibody for Glut10 siRNA (h): sc-60697, Glut10 shRNA Plasmid (h): sc-60697-SH and Glut10 shRNA (h) Lentiviral Particles: sc-60697-V.

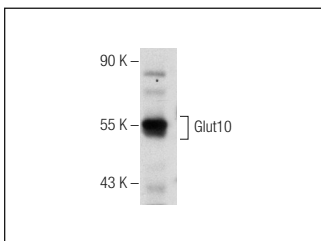
Molecular Weight of Glut10: 57 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or c4 whole cell lysate.

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



Glut10 (H-96): sc-99069. Western blot analysis of Glut10 expression in Hep G2 whole cell lysate.

RESEARCH USE

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

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Try **Glut10 (H-10): sc-398495**, our highly recommended monoclonal alternative to Glut10 (H-96).