

Glut12 (P-13): sc-161658

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. Glut12 (glucose transporter type 12), also known as SLC2A12 (solute carrier family 2, facilitated glucose transporter member 12) or Glut8, is a 617 amino acid multi-pass membrane protein and facilitative glucose transporter expressed in heart, prostate and skeletal muscle.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SLC2A12 (human) mapping to 6q23.2; Slc2a12 (mouse) mapping to 10 A3.

SOURCE

Glut12 (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of Glut12 of human origin.

STORAGE

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

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-161658 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Glut12 (P-13) is recommended for detection of Glut12 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); non cross-reactive with other Glut family members.

Suitable for use as control antibody for Glut12 siRNA (h): sc-95092, Glut12 siRNA (m): sc-145449, Glut12 shRNA Plasmid (h): sc-95092-SH, Glut12 shRNA Plasmid (m): sc-145449-SH, Glut12 shRNA (h) Lentiviral Particles: sc-95092-V and Glut12 shRNA (m) Lentiviral Particles: sc-145449-V.

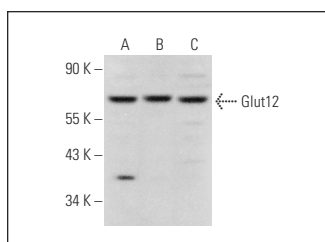
Molecular Weight of Glut12: 60 kDa.

Positive Controls: JAR cell lysate: sc-2276, HEK293 whole cell lysate: sc-45136 or Jurkat whole cell lysate: sc-2204.

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



Glut12 (P-13): sc-161658. Western blot analysis of Glut12 expression in JAR (A), HEK293 (B) and Jurkat (C) whole cell lysates.

RESEARCH USE

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