**BACKGROUND**

Glucose is fundamental to the metabolism of mammalian cells. Its passage across cell membranes is mediated by a family of transporters termed glucose transporters or Glut. Glut1, Glut3 and Glut4 are high-affinity transporters, whereas Glut2 is a low-affinity transporter. In adipose and muscle tissue, insulin stimulates a rapid and dramatic increase in glucose uptake, largely due to the redistribution of the insulin-inducible glucose transporter, Glut4. In response to insulin, Glut4 is quickly shuttled from an intracellular storage site to the plasma membrane, where it binds glucose. In contrast, the ubiquitously expressed glucose transporter Glut1 is constitutively targeted to the plasma membrane and shows a much less dramatic translocation in response to insulin. Glut2 expression is seen in pancreatic β cells, hepatocytes and basolateral membranes of intestinal and epithelial cells, while the highest expression of Glut3 has been found in neuronal tissue.

**CHROMOSOMAL LOCATION**

Genetic locus: SLC2A3 (human) mapping to 12p13.31; SIK2a3 (mouse) mapping to 6 F2.

**SOURCE**

Glut3 (G-5) is a mouse monoclonal antibody raised against amino acids 216-265 mapping within an internal region of Glut3 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Glut3 (G-5) is available conjugated to agarose (sc-74399 AC), 500 µg/0.25 ml agarose in 1 ml, for IF, to HRP (sc-74399 HRP), 200 µg/ml, for WB, HRP (sc-74399 HRPO) and ELISA; to either phycoerythrin (sc-74399 PE), fluorescein (sc-74399 FITC), Alexa Fluor® 488 (sc-74399 AF488), Alexa Fluor® 546 (sc-74399 AF546), Alexa Fluor® 647 (sc-74399 AF647), 200 µg/ml, for WB (RGB), IF, and FC; and to either Alexa Fluor® 594 (sc-74399 AF594) or Alexa Fluor® 790 (sc-74399 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FC.

**APPLICATIONS**

Glut3 (G-5) is recommended for detection of Glut3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 Glut3 siRNA (h); sc-41218, Glut3 siRNA (m); sc-41219, Glut3 shRNA Plasmid (h): sc-41219-SH, Glut3 shRNA Plasmid (m): sc-41219-SH, Glut3 shRNA Plasmid (r); sc-270174-SH, Glut3 shRNA (h) Lentiviral Particles: sc-41218-V, Glut3 shRNA (m) Lentiviral Particles: sc-41219-V and Glut3 shRNA (r) Lentiviral Particles: sc-270174-V.

Molecular Weight of Glut3: 48-70 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or ES-2 cell lysate: sc-24674.

**DATA**

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

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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