Glut5 (E-2): sc-271055

**BACKGROUND**

Glucose is the major source of our energy and there are numerous isoforms of the glucose transporter in mammals, including Glut1, Glut2, Glut3, Glut4, Glut5, Glut6, Glut7, and Glut8. The Glut5 gene located on the short arm of human chromosome 1 encodes a 501 amino acid facilitative glucose transporter. Glut5 mRNA is highly expressed in small intestine and to a lesser extent in kidney, skeletal muscle and adipose tissue. Glut5 plays a critical role in fructose absorption in the small intestine and its expression is highly induced when exposed to a fructose-enriched diet. Glut5 transporter expressed in human skeletal muscle is specifically localized to the plasma membrane, where it participates in regulating hexose transfer across the sarcolemma. Glut8, a novel glucose transporter-like protein, exhibits significant sequence similarity with the other members of sugar transporter family. Glut8 comprises 12 putative membrane-spanning helices and several conserved motifs, which are important for transport activity. In human tissues, Glut8 is predominantly expressed in testis and, to a lesser extent, in most other tissues including skeletal muscle, heart, small intestine and brain. In addition, the Glut8 glucose transport facilitator has a hormonally regulated testicular function.

**CHROMOSOMAL LOCATION**

Genetic locus: SLC2A5 (human) mapping to 1p36.23; Slc2a5 (mouse) mapping to 4 E2.

**SOURCE**

Glut5 (E-2) is a mouse monoclonal antibody raised against amino acids 221-420 mapping within an internal region of Glut5 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Glut5 (E-2) is available conjugated to agarose (sc-271055 AC), 500 µg/0.25 ml sodium azide and 0.1% gelatin.

Glut5 (E-2) is recommended for detection of Glut5 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), immunohistochemistry (including paraffin-embedded sections) (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 Glut5 siRNA (h): sc-41222, Glut5 siRNA (m): sc-41223, Glut5 shRNA Plasmid (h): sc-41222-SH, Glut5 shRNA Plasmid (m): sc-41223-SH, Glut5 shRNA (h) Lentiviral Particles: sc-41222-LV and Glut5 shRNA (m) Lentiviral Particles: sc-41223-LV.

Molecular Weight of Glut5: 49-60 kDa. Positive Controls: rat small intestine extract: sc-364811, HEL 92.1.7 cell lysate: sc-2270 or HEK293 whole cell lysate: sc-45136.

**APPLICATIONS**

**DATA**

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**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

**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 for detailed protocols and support products.

**DATA**

Glut5 (E-2): sc-271055. Western blot analysis of Glut5 expression in rat small intestine tissue extract (A) and HEK293 (B), HEL 92.1.7 (C) and HEK293 (D) whole cell lysates.

Glut5 (E-2): sc-271055. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing membrane and cytoplasmic staining of glandular cells.

SANTA CRUZ BIOTECHNOLOGY, INC.

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Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

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