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RABBIT ANTI-GLUT-4
POLYCLONAL ANTIBODY

CATALOG NUMBER: AB1346

QUANTITY: 50 µg

LOT NUMBER:

ALTERNATE NAMES: Glucose transporter type 4, insulin-responsive

EPITOPE: C-terminus

SPECIFICITY: Glucose transporter 4 (Glut-4) is a protein present in rat skeletal muscle, heart and adipose tissues. Glut-4 is highly conserved between species, and the peptide sequence selected for production of AB1346 is identical in rat, human (amino acids 498-510), and mouse. This antibody shows no cross-reactivity of HepG2 type transporter from rat brain or other glucose transporters.

IMMUNOGEN: Synthetic peptide corresponding to the C-terminus (amino acids 498-510) of mouse Glut-4

APPLICATIONS: Western blotting:1:1000 - 1:5000 using chemiluminescent detection. Other detection methods may require a higher concentration of antibody. Identifies a major band at 40-43 kDa in purified rat adipocyte membranes. Typical membrane preparations are recommended. Cells are homogenized in an ice-cold buffer containing 20 mM HEPES, 250 mM sucrose, 2 mM EGTA, 0.2 mM PMSF, 1 µM leupeptin, pH 7.4. Nuclei and unbroken cells were removed by centrifugation at 2000 x g for 10 minutes. Total membrane fraction was prepared by centrifugation of the supernatant in a super-speed centrifuge at 190,000 x g for 1 hour at 4°C. The membrane pellets were re-suspended in homogenization buffer and stored at -20°C or -70°C. Protein concentrations were determine prior to SDS-PAGE. (Valerde et al., 1999).
Immunohistochemistry in paraffin sections (Maor et al., 1999).
ELISA: 1:10,000 - 1:50,000 using 1 µg of antigen per mL.

Optimal working dilutions must be determined by end user.

SPECIES REACTIVITY: Reacts with Human, Bovine, Rat, Mouse, Bovine, and Pig. Reactivity with other species has not been determined.

CONTROL: POSITIVE CONTROL: 3T3 L1 adipocyte membranes.

FORMAT: Affinity purfied antibody

PRESENTATION: Liquid in PBS 0.05% sodium azide.

For research use only; not for use as a diagnostic.

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STORAGE/HANDLING: Store at -20°C for up to 12 months in undiluted aliquots. Avoid repeated freeze-thaw cycles.

REFERENCES:

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Zisman, A. *et al.* (2000). Targeted disruption of the glucose transporter 4 selectively in muscle causes insulin resistance and glucose intolerance. *Nature Medicine* **6**(**8**):924-928.

Fasshauer, M. (2000). Essential role of insulin receptor substrate-2 in insulin stimulation of Glut4 translocation and glucose uptake in brown adipocytes. *J. Biol. Chem.* **275**:25494-25501.

Fruman, D.A. *et al.* (2000). Hypoglycaemia, liver necrosis and perinatal death in mice lacking all isoforms of phosphoinositide 3-kinase p85alpha. *Nature Genetics* **26**(**3**):379-382.

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Gillingham, A.K. *et al.* (1999). Association of AP1 adaptor complexes with GLUT4 vesicles. *J. Cell Sci.* **112**:4793-4800.

James, D. *et al.* (1989). Molecular cloning and characterization of an insulin-regulatable glucose transporter. *Nature* **338**:83-87.

Important Note: *During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µL or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.*

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