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GLUT4 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10733

Specification

GLUT4 Antibody - Product Information

Application	**WB**
Primary Accession	P14142
Other Accession	EDL12495.1
Reactivity	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**54755**

GLUT4 Antibody - Additional Information

Gene ID 20528

Positive Control	**3T3 cell lysate, rat kidney tissue lysate**
Application & Usage	**Western blot analysis (1-4 µg/ml). However, the optimal conditions should be determined individually. 3T3 cell lysate can be used as a positive control.**

Other Names
Solute carrier family 2, facilitated glucose transporter member 4, Glucose transporter type 4, insulin-responsive, GLUT-4

Target/Specificity
GLUT4

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
200 µg (0.5 mg/ml) affinity purified rabbit anti-GLUT4 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
GLUT4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

GLUT4 Antibody - Protein Information

Name Slc2a4 {ECO:0000312|MGI:MGI:95758}

Function
Insulin-regulated facilitative glucose transporter, which plays a key role in removal of glucose from circulation (PubMed:26240143, PubMed:26629404). Response to insulin is regulated by its intracellular localization: in the absence of insulin, it is efficiently retained intracellularly within storage compartments in muscle and fat cells (PubMed:26240143, PubMed:26629404). Upon insulin stimulation, translocates from these compartments to the cell surface where it transports glucose from the extracellular milieu into the cell (PubMed:26240143, PubMed:26629404).

Cellular Location
Cell membrane; Multi-pass membrane protein. Endomembrane system; Multi-pass membrane protein. Cytoplasm, perinuclear region. Note=Localizes primarily to the perinuclear region, undergoing continued recycling to the plasma membrane where it is rapidly reinternalized (PubMed:26629404, PubMed:26240143, PubMed:27354378). The dileucine internalization motif is critical for intracellular sequestration (PubMed:26240143, PubMed:26629404). Insulin stimulation induces translocation to the cell membrane (PubMed:27739494).

Tissue Location
Expressed in skeletal and cardiac muscles (PubMed:2654938, PubMed:26240143). Expressed in brown and white adipose tissues (PubMed:2654938, PubMed:26240143)

GLUT4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GLUT4 Antibody - Images

GLUT4 Antibody - Background

Insulin stimulates glucose uptake in the muscles and adipose tissues by activating GLUT4 (Glucose Transporter Type 4). GLUT 4 is a transmembrane protein that facilitates glucose transport from storage sites to cell surface. Human insulin resistance involves a defect in GLUT4 that leads to accumulation in a dense membrane compartment from which insulin is unable to recruit GLUT4 to

the cell surface.