

Anti-GLUT4 Antibody

Catalog # ABO11032

Product Information

Application	WB, IHC-P
Primary Accession	P14672
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Solute carrier family 2, facilitated glucose transporter member 4(SLC2A4) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	6517
Other Names	Solute carrier family 2, facilitated glucose transporter member 4, Glucose transporter type 4, insulin-responsive, GLUT-4, SLC2A4, GLUT4
Calculated MW	54787
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Subcellular Localization	Cell membrane ; Multi-pass membrane protein . Endomembrane system ; Multi-pass membrane protein . Cytoplasm, perinuclear region . Localizes primarily to the perinuclear region, undergoing continued recycling to the plasma membrane where it is rapidly reinternalized. The dileucine internalization motif is critical for intracellular sequestration.
Tissue Specificity	Skeletal and cardiac muscles; brown and white fat.
Source	Eukaryota
Protein Name	Solute carrier family 2, facilitated glucose transporter member 4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg Na ₃ N.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human GLUT4 (491-509aa EQEVKPSTELEYLGPDEND), identical to the related rat and

mouse sequences.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the major facilitator superfamily. Sugar transporter (TC 2.A.1.1) family. Glucose transporter subfamily.

Protein Information

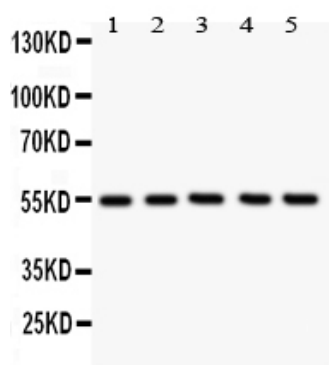
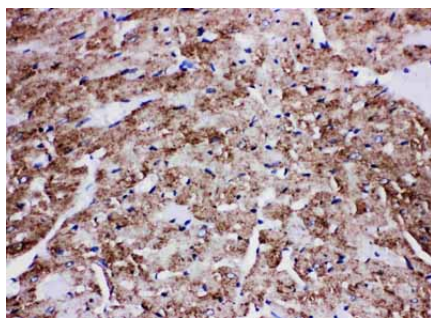
Name	SLC2A4 (HGNC:11009)
Function	Insulin-regulated facilitative glucose transporter, which plays a key role in removal of glucose from circulation. Response to insulin is regulated by its intracellular localization: in the absence of insulin, it is efficiently retained intracellularly within storage compartments in muscle and fat cells. Upon insulin stimulation, translocates from these compartments to the cell surface where it transports glucose from the extracellular milieu into the cell.
Cellular Location	Cell membrane {ECO:0000250 UniProtKB:P14142}; Multi-pass membrane protein {ECO:0000250 UniProtKB:P14142} Endomembrane system; Multi-pass membrane protein. Cytoplasm, perinuclear region {ECO:0000250 UniProtKB:P14142}. Note=Localizes primarily to the perinuclear region, undergoing continued recycling to the plasma membrane where it is rapidly reinternalized (PubMed:8300557). The dileucine internalization motif is critical for intracellular sequestration (PubMed:8300557). Insulin stimulation induces translocation to the cell membrane (By similarity) {ECO:0000250 UniProtKB:P14142, ECO:0000269 PubMed:8300557}
Tissue Location	Skeletal and cardiac muscles; brown and white fat.

Background

Facilitated glucose transport by mammalian cells is not a property of a single protein but an activity associated with a family of structurally related proteins. Glucose transporter 4 is a insulin-responsive glucose transporter. It belongs to solute carrier family 2, member 1. Insulin alters the subcellular localization of GLUT4 vesicles in human muscle, and that this effect is impaired equally in insulin-resistant subjects with and without diabetes. A similar pattern of defects cause insulin resistance in human adipocytes.Human insulin resistance involves a defect in GLUT4 traffic and targeting leading to accumulation in a dense membrane compartment from which insulin is unable to recruit GLUT4 to the cell surface.

Images

Anti-GLUT4 antibody, ABO11032, IHC(P)IHC(P): Rat Cardiac Muscle Tissue



Anti-GLUT4 antibody, ABO11032, Western blotting
 All lanes: Anti GLUT4 (ABO11032) at 0.5ug/ml
 Lane 1: Rat Cardiac Muscle Tissue Lysate at 50ug
 Lane 2: Rat Skeletal Muscle Tissue Lysate at 50ug
 Lane 3: Mouse Cardiac Muscle Tissue Lysate at 50ug
 Lane 4: Mouse Skeletal Muscle Tissue Lysate at 50ug
 Lane 5: HELA Whole Cell Lysate at 40ug
 Predicted bind size: 55 K
 Observed bind size: 55 K

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.