

**Anti-GLUT4 Antibody**  
**Catalog # ABO11032****Specification**

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**Anti-GLUT4 Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	<a href="#">P14672</a>
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.

**Anti-GLUT4 Antibody - 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 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat<br> <br>Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat<br>

**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.

**Protein Name**

Solute carrier family 2, facilitated glucose transporter member 4

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**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 reconstitution, 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.

**Anti-GLUT4 Antibody - 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**

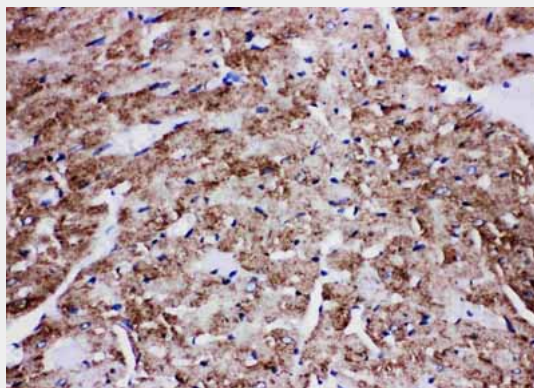
Skeletal and cardiac muscles; brown and white fat.

**Anti-GLUT4 Antibody - Protocols**

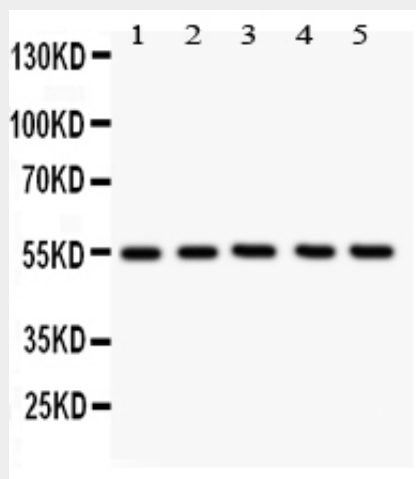
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-GLUT4 Antibody - 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 KD  
Observed bind size: 55 KD

## Anti-GLUT4 Antibody - 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.