

GLUT4 monoclonal antibody

Catalog: MB66704

Host:

Mouse

Reactivity: Human, Mouse

BackGround:

A group of related glucose transporters (Glut1-5 and 7) mediate the facilitated diffusion of glucose in nonepithelial mammalian tissues. Within insulin-responsive tissues such as muscle and fat, Glut1 contributes to basal glucose uptake while Glut4 is responsible for insulin-stimulated glucose transport. Glut4 is a 12-transmembrane domain protein that facilitates glucose transport in the direction of the glucose gradient. This transporter localizes to intracellular organelles (endosomes) in unstimulated cells and translocates to the cell surface following insulin stimulation. Translocation of Glut4 is dependent on Akt, which may act by phosphorylating AS160, a RabGAP protein involved in membrane trafficking.

Product:

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 55 kDa

Swiss-Prot:

P14672

Purification&Purity:

The antibody was purified by protein G.

Applications:

WB (1/500 - 1/1000), IHC (1/100 - 1/500), IF/ICC (1/100 - 1/500), FC (1/100 - 1/200)

Storage&Stability:

Store at $4 \,^{\circ}{\rm C}$ short term. Aliquot and store at $-20 \,^{\circ}{\rm C}$ long term. Avoid freeze-thaw cycles.

Specificity:

Recognizes endogenous levels of GLUT4 protein.

DATA:



Western blot analysis of GLUT4 expression in HeLa (A), NIH3T3 (B), 3T3-L1 (C), mouse heart (D) whole cell lysates.



Immunohistochemical analysis of GLUT4 staining in human bladder cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of GLUT4 staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated

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secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF555 was used to stain the cytoplasm (red). DAPI was used to stain the cell nuclei (blue).



Note:

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

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