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SLC2A4 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO2244a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	P14672
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Clone Names	3G10A3
Isotype	IgG2b
Calculated MW	54787
Description	This gene is a member of the solute carrier family 2 (facilitated glucose transporter) family and encodes a protein that functions as an insulin-regulated facilitative glucose transporter. In the absence of insulin, this integral membrane protein is sequestered within the cells of muscle and adipose tissue. Within minutes of insulin stimulation, the protein moves to the cell surface and begins to transport glucose across the cell membrane. Mutations in this gene have been associated with noninsulin-dependent diabetes mellitus (NIDDM).
Immunogen	Purified recombinant fragment of human SLC2A4 (AA: 224-353) expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

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
Dilution	WB~~1/500 - 1/2000 IHC~~1:100~500 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SLC2A4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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.

References

1.J Biol Chem. 2011 May 13;286(19):16541-5. 2.PLoS One. 2010 Dec 20;5(12):e15560.

Images

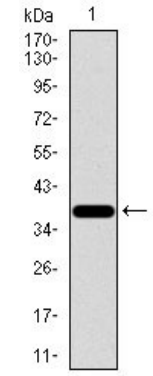


Figure 1: Western blot analysis using SLC2A4 mAb against human SLC2A4 recombinant protein. (Expected MW is 39.9 kDa)

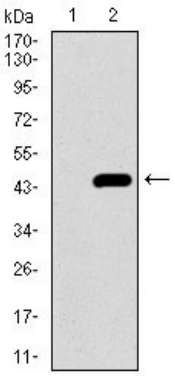
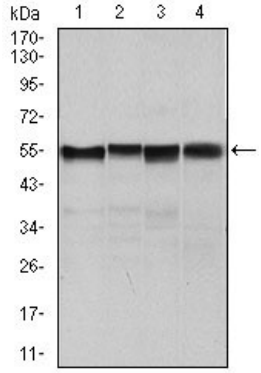


Figure 2: Western blot analysis using SLC2A4 mAb against HEK293 (1) and SLC2A4 (AA: 224-353)-hIgGFc transfected HEK293 (2) cell lysate.

Figure 3: Western blot analysis using SLC2A4 mouse mAb against NIH3T3 (1), 3T3L1 (2), MCF-7 (4) cell lysate and Mouse heart (3) tissue lysate.



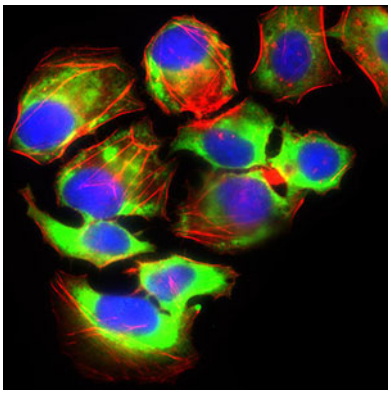


Figure 4: Immunofluorescence analysis of HeLa cells using SLC2A4 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

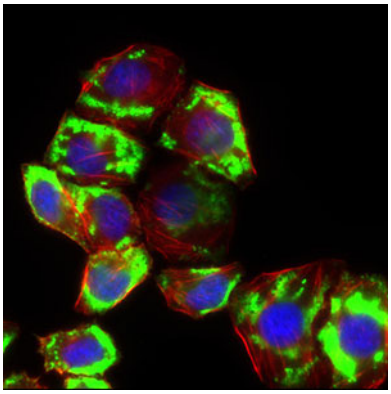


Figure 5: Immunofluorescence analysis of HepG2 cells using SLC2A4 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

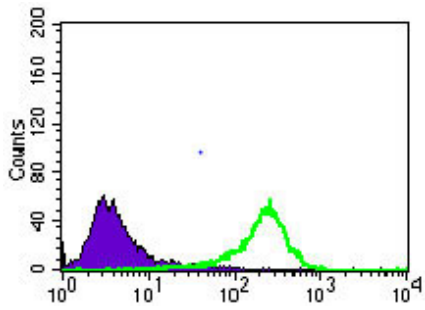


Figure 6: Flow cytometric analysis of HeLa cells using SLC2A4 mouse mAb (green) and negative control (purple).