

Glut4 (1F8) Mouse mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R	Endogenous	50	Mouse IgG1	#P14672	6517

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Glut4 (1F8) Mouse mAb detects endogenous levels of total Glut4 protein. It does not cross-react with other related proteins.

Source / Purification

Monoclonal antibody is produced by immunizing animals with partially purified intracellular glucose transporter-containing vesicles obtained from rat adipocytes.

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 (1-3). 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 (1,2,4). Translocation of Glut4 is dependent on Akt, which may act by phosphorylating AS160, a RabGAP protein involved in membrane trafficking (5).

Background References

1. Marette, A. et al. (1992) *Am J Physiol* 263, C443-52.
2. Slot, J.W. et al. (1991) *Proc Natl Acad Sci U S A* 88, 7815-9.
3. James, D.E. et al. (1989) *Nature* 338, 83-7.
4. Barrett, M.P. et al. (1999) *Curr Opin Cell Biol* 11, 496-502.
5. Zeigerer, A. et al. (2004) *Mol Biol Cell* 15, 4406-15.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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