

GLUT 4

Cat.No. 235 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: not tested yet ICC: not tested yet IHC: 1 : 500 IHC-P/FFPE: 1 : 200
Immunogen	Synthetic peptide corresponding to AA 495 to 509 from human GLUT4 (UniProt Id: P14672)
Reactivity	Reacts with: human (P14672), rat (P19357), mouse (P14142), pig. Other species not tested yet.
Specificity	Specific for GLUT 4.
matching control	235-OP

TO BE USED IN VITRO / FOR RESEARCH ONLY

NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Insulin stimulates glucose transport into muscle and fat cells by the redistribution of the **glucose transporters 1 and 4** (GLUT 1 and **GLUT 4**) from intracellular membrane compartments to the cell surface via GLUT carrying vesicles.
Formation of soluble SNARE complexes mediate the docking and fusion of GLUT 4-containing vesicles with the plasma membrane.

Selected References SYSY Antibodies

AMP-activated protein kinase is activated in adipose tissue of individuals with type 2 diabetes treated with metformin: a randomised glycaemia-controlled crossover study.
Boyle JG, Logan PJ, Jones GC, Small M, Sattar N, Connell JM, Cleland SJ, Salt IP
Diabetologia (2011) 54(7): 1799-809. **WB**

Sorting of GLUT4 into its insulin-sensitive store requires the Sec1/Munc18 protein mVps45.
Roccisana J, Sadler JB, Bryant NJ, Gould GW
Molecular biology of the cell (2013) 24(15): 2389-97. **WB**

Selected General References

DOC2B: a novel syntaxin-4 binding protein mediating insulin-regulated GLUT4 vesicle fusion in adipocytes.
Fukuda N, Emoto M, Nakamori Y, Taguchi A, Miyamoto S, Uraki S, Oka Y, Tanizawa Y
Diabetes (2009) 58(2): 377-84.

Regulation of insulin secretion and GLUT4 trafficking by the calcium sensor synaptotagmin VII.
Li Y, Wang P, Xu J, Gorelick F, Yamazaki H, Andrews N, Desir GV
Biochemical and biophysical research communications (2007) 362(3): 658-64.

Mechanism and regulation of GLUT-4 vesicle fusion in muscle and fat cells.
Foster LJ, Klip A
American journal of physiology. Cell physiology (2000) 279(4): C877-90.

Regulation of insulin-stimulated GLUT4 translocation by Munc18c in 3T3L1 adipocytes.
Thurmond DC, Ceresa BP, Okada S, Elmendorf JS, Coker K, Pessin JE
The Journal of biological chemistry (1998) 273(50): 33876-83.

Intracellular targeting of the insulin-regulatable glucose transporter (GLUT4) is isoform specific and independent of cell type.
Haney PM, Slot JW, Piper RC, James DE, Mueckler M
The Journal of cell biology (1991) 114(4): 689-99.