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Product Information

Monoclonal anti-GLUT4/SLC2A4 antibody produced in mouse
clone Glut2.6, purified from hybridoma cell culture

Catalog Number **SAB4200653**

Product Description

Monoclonal Anti-GLUT4/SLC2A4 (mouse IgM isotype) is derived from the hybridoma Glut2.6 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to a sequence at the C-terminal region of human GLUT4 (GeneID: 6517), conjugated to KLH. The corresponding sequence is identical in mouse and rat. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-GLUT4/SLC2A4 recognizes human GLUT4. The product may be used in several immunochemical techniques including immunoblotting (~55 kDa) and immunofluorescence.

GLUT4 (Glucose transporter type 4) also known as SLC2A4 (solute carrier family 2 (facilitated glucose transporter), member 4), is one of 14 GLUT proteins. GLUT proteins are encoded by the SLC2 genes which are members of the major facilitator superfamily of membrane transporters.[1] GLUT4 molecules normally reside in GLUT4 storage vesicles (GSV). GSV are composed of numerous intracellular compartments, including specialized storage vesicles and early/recycling endosomes, typically in skeletal muscle and adipose tissues. Upon insulin stimulation, GLUT4 translocates by exocytosis to the plasma membrane, probably by GSV fusion with plasma membrane .[1-6] Defects in GLUT4 can result in type 2 diabetes mellitus. Furthermore, protease inhibitors used in HIV drug therapy, often target GLUT4 and can therefore lead to type 2 diabetes mellitus in these patients.[1, 4]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For extended storage, freeze at −20 °C in working aliquots. Repeated freezing and thawing or storage in “frost-free” freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 4-8 µg /mL is recommended using whole extracts of HeLa cells.

Immunofluorescence: a working concentration of 5-10 µg /mL is recommended using HeLa cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration. Use of sensitive film is recommended.

References

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3. Thong, F.S., et al., *Physiology (Bethesda)*, **20**, 271-284 (2005).
4. Govers, R., *Diabetes Metab.*, **S1262-3636**, 00032-9 (2014).
5. Stöckli, J., et al., *J. Cell Sci.*, **124**, 4147–4159 (2011).
6. Foley, K., et al., *Biochemistry*, **50**, 3048-3061 (2011).

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