Human Glut3 Antibody

Monoclonal Mouse IgG_{2B} Clone # 202017

Catalog Number: MAB1415

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Glut3. Recognizes human Glut3 expression on human Glut3-transfected NS0 cells, but not the NS0 control transfectants. No cross-reactivity was observed with transfectants expressing human Glut1 or human Glut2.
Source	Monoclonal Mouse IgG_{2B} Clone # 202017
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human Glut3 Accession # P11169
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

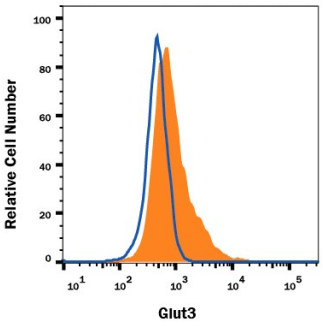
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	0.25 µg/10^6 cells	See Below
Immunocytochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

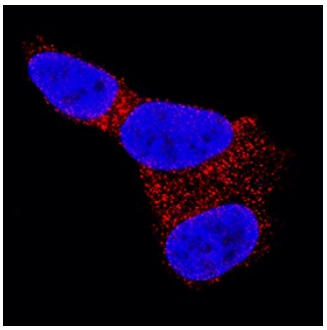
DATA

Flow Cytometry



Detection of Glut3 in NS0 Mouse Cell Line Transfected with Human Glut3 by Flow Cytometry. NS0 mouse myeloma cell line transfected with human Glut3 was stained with Mouse Anti-Human Glut3 Monoclonal Antibody (Catalog # MAB1415, filled histogram) or isotype control antibody (Catalog # MAB0041, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). View our protocol for Staining Membrane-associated Proteins.

Immunocytochemistry



Glut3 in SH-SY5Y Human Cell Line. Glut3 was detected in immersion fixed SH-SY5Y human neuroblastoma cell line using Mouse Anti-Human Glut3 Monoclonal Antibody (Catalog # MAB1415) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Glut3 belongs to the facilitative glucose transporter protein family that comprises 13 members, and is designated SLC2A3 (solute carier family 2, member 3). It is an integral membrane protein with 12 transmembrane domains. Glut3 is the glucose transporter responsible for maintaining an adequate glucose supply to neurons (1, 2). It is also expressed in placenta and articular chondrocytes (3, 4).

References:

1. Vannuci, S.J. *et al.* (1997) Glia **21**:2.
2. Mueckler, M. *et al.* (1997) Biochem. Soc. Trans. **25**:951.
3. Illsley, N.P. (2000) Placenta **21**:14.
4. Mobasheri, A. (2002) Cell Biol. Int. **26**:297.

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