Mouse Glut2 Antibody

Monoclonal Rat IgG_{2B} Clone # 205115

Catalog Number: MAB1440

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Glut2. Recognizes mouse Glut2-transfected NS0 cells but not NS0 control transfectants. It also detects Glut2 on mouse insulinoma βTC-6 cells (2).
Source	Monoclonal Rat IgG_{2B} Clone # 205115
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	CHO Chinese hamster ovary cell line transfected with mouse Glut2 Met1-Val523 Accession # P14246
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 as a 0.2 μm filtered solution in PBS.

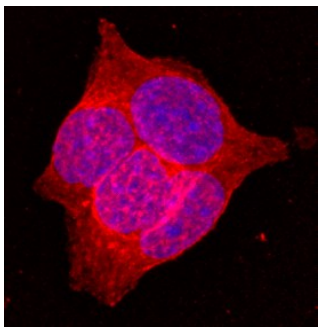
APPLICATIONS

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.	

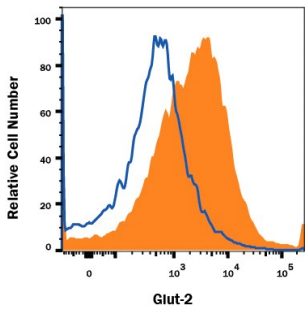
DATA

Immunocytochemistry



Glut2 in βTC-6 Mouse Cell Line. Glut2 was detected in immersion fixed βTC-6 mouse beta cell insulinoma cell line using Rat Anti-Mouse Glut2 Monoclonal Antibody (Catalog # MAB1440) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Flow Cytometry



Detection of Glut2 in βTC-6 Mouse Cell Line by Flow Cytometry. βTC-6 mouse beta cell insulinoma cell line was stained with Rat Anti-Mouse Glut2 Monoclonal Antibody (Catalog # MAB1440, filled histogram) or isotype control antibody (Catalog # MAB0061, open histogram) followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). View our protocol for Staining Membrane-associated Proteins.

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

Glut2 belongs to the facilitative glucose transporter protein family that comprises 13 members. It is an integral membrane protein with 12 transmembrane domains. Glut2 is expressed predominantly in liver, intestine, kidney and pancreatic beta-cells. It is a low-affinity glucose transporter that has been suggested to function as a glucose sensor in pancreatic beta-cells and facilitate either glucose uptake or efflux from cells depending on the nutritional state (1).

References:

1. Olson, A.L. and J.E. Pessin (1996) Annu. Rev. Nut. **16**:235.
2. Poitout, V. *et al*. (1995) Diabetes **44**:306.

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