

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Recognizes human Glut2 expression on human Glut2-transfected NS0 cells, but not on control transfectants. Was shown to detect Glut2 on the surface of the human intestinal cell line Caco2 (2) in flow cytometry and on fixed cells in immunocytochemistry tests. Based on flow cytometric tests on transfected cells, this antibody has no cross-reactivity with human Glut1 or human Glut3.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 199017
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	NS0 mouse myeloma cell line transfected with human Glut2 Met1-Val524 Accession # P11168
<b>Formulation</b>	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.

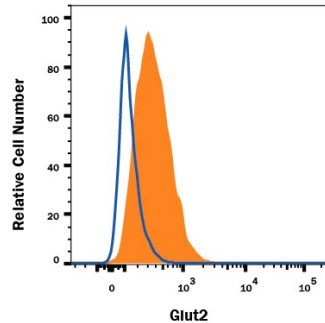
## APPLICATIONS

**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.

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

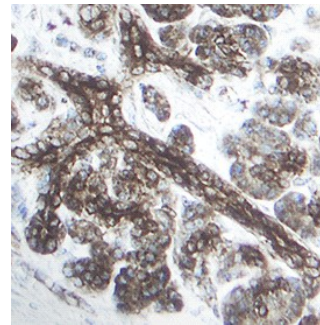
## DATA

### Flow Cytometry



**Detection of Glut2 in HepG2 Human Cell Line by Flow Cytometry.** HepG2 human hepatocellular carcinoma cell line was stained with Mouse Anti-Human Glut2 Monoclonal Antibody (Catalog # MAB1414, filled histogram) or isotype control antibody (Catalog # MAB003, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). View our protocol for [Staining Membrane-associated Proteins](#).

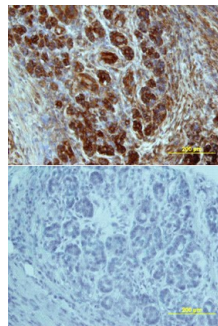
### Immunohistochemistry



#### Glut2 in Human Pancreatic Cancer Tissue.

Glut2 was detected in immersion fixed paraffin-embedded sections of human pancreatic cancer tissue using Mouse Anti-Human Glut2 Monoclonal Antibody (Catalog # MAB1414) at 5 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific labeling was localized to the plasma membrane of exocrine cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

### Immunohistochemistry



#### Glut2 in Human Pancreas.

Glut2 was detected in immersion fixed paraffin-embedded sections of human pancreas array using Mouse Anti-Human Glut2 Monoclonal Antibody (Catalog # MAB1414) at 25 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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. Mahraoui, L. *et al.* (1994) *J. Biochem.* **298**:629.