

Glucose Transporter GLUT1 Recombinant Antibody [SA0377] - Rat IgG1 (Chimeric)

HA601521



Product Type:	Recombinant Chimeric Antibody, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IHC-Fr, IHC-P, IF-Tissue, WB
Molecular Wt:	Predicted band size: 54 kDa
Clone number:	SA0377

Description: Glucose transporter 1 (or GLUT1), also known as solute carrier family 2, facilitated glucose transporter member 1 (SLC2A1), is a uniporter protein that in humans is encoded by the SLC2A1 gene. GLUT1 facilitates the transport of glucose across the plasma membranes of mammalian cells. This gene encodes a major glucose transporter in the mammalian blood-brain barrier. The encoded protein is found primarily in the cell membrane and on the cell surface, where it can also function as a receptor for human T-cell leukemia virus (HTLV) I and II. One good source of GLUT1 is erythrocyte membranes. GLUT1 accounts for 2 percent of the protein in the plasma membrane of erythrocytes. GLUT1, found in the plasma membrane of erythrocytes, is a classic example of a uniporter. After glucose is transported into the erythrocyte, it is rapidly phosphorylated, forming glucose-6-phosphate, which cannot leave the cell. Mutations in this gene can cause GLUT1 deficiency syndrome 1, GLUT1 deficiency syndrome 2, idiopathic generalized epilepsy 12, dystonia 9, and stomatin-deficient cryohydrocytosis.

Immunogen: Synthetic peptide within Human GLUT1 aa 443-492 / 492.

Positive control: Human liver tissue, mouse liver tissue, HeLa cell lysate, HT-29 cell lysate, PC-12 cell lysate, Mouse liver tissue lysate.

Subcellular location: Cell membrane, Melanosome

Database links: SwissProt: P11166 Human | P17809 Mouse | P11167 Rat

Recommended Dilutions:

IHC-Fr	1:500
IHC-P	1:2,000-1:5,000
IF-Tissue	1:500-1:1,000
WB	1:50,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders: 0086-571-88062880

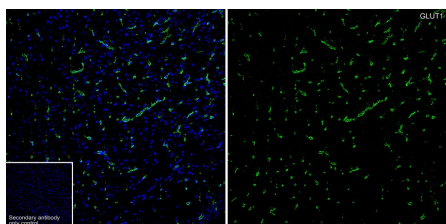
Technical: 0086-571-89986345

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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

**Fig1:** Application: IHC-Fr

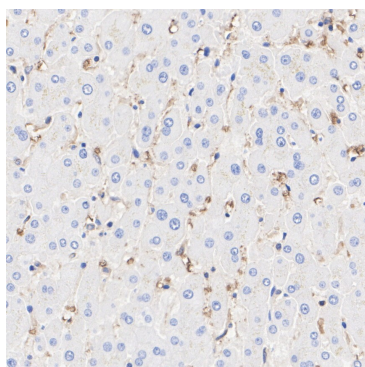
Species: Mouse

Site: brain

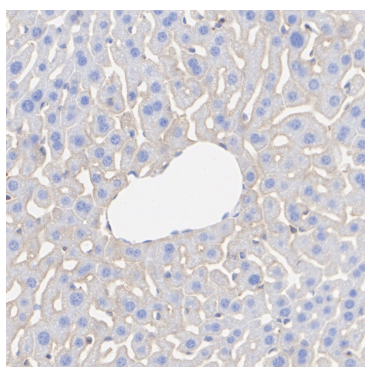
Sample: Frozen section

Antibody concentration: 1/500

Antigen retrieval: Not required

**Fig2:** Immunohistochemical analysis of paraffin-embedded human liver tissue with Rat anti-Glucose Transporter GLUT1 antibody (HA601521) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA601521) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

**Fig3:** Immunohistochemical analysis of paraffin-embedded mouse liver tissue with Rat anti-Glucose Transporter GLUT1 antibody (HA601521) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA601521) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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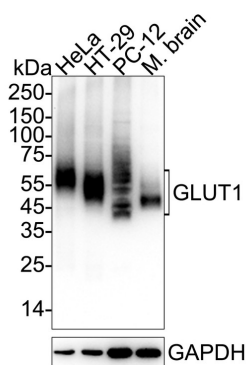
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Fig4: Western blot analysis of Glucose Transporter GLUT1 on different lysates with Rat anti-Glucose Transporter GLUT1 antibody (HA601521) at 1/50,000 dilution.

Lane 1: HeLa cell lysate
 Lane 2: HT-29 cell lysate
 Lane 3: PC-12 cell lysate
 Lane 4: Mouse liver tissue lysate (no heat)



Notice: no heat means the lysate is not boiled.

Lysates/proteins at 10 µg/Lane.

Predicted band size: 54 kDa
 Observed band size: 45-60 kDa

Exposure time: 25 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601521) at 1/50,000 dilution was used in primary antibody dilution (K1803) at 4°C overnight. Goat Anti-Rat IgG H&L - HRP Secondary Antibody (HA1023) at 1/50,000 dilution was used for 1 hour at room temperature.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Boyer-Di Ponio J et al. Instruction of circulating endothelial progenitors in vitro towards specialized blood-brain barrier and arterial phenotypes. PLoS One 9:e84179 (2014).
2. Saucillo DC et al. Leptin metabolically licenses T cells for activation to link nutrition and immunity. J Immunol 192:136-44 (2014).

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