Product datasheet

Anti-GLUT1/SLC2A1 Antibody

Catalog Number: *PB9435*

BOSTER
antibody and ELISA experts
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Basic Information

Product Name	Anti-GLUT1/SLC2A1 Antibody
Gene Name	SLC2A1
Source	Rabbit
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB, IHC, IHC-F, ICC/IF, FCM
Contents	500 ug/ml antibody with PBS， 0.02% NaN3 , 1 mg BSA and 50% glycerol.
Immunogen	E.coli-derived human SLC2A1 recombinant protein (Position: R92-V492). Human SLC2A1 shares 98% and 98.3% amino acid (aa) sequence identity with mouse and rat SLC2A1, respectively.
concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	55KD
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunohistochemistry in frozen section (IHC-F): 1:50-400 Immunocytochemistry: 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow cytometry (FCM): 1-3 μg/1x10^6 cells (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt，-20℃ as supplied. 6 months 2 to 8℃ after reconstitution. Avoid repeated freezing and thawing.

Background Information

GLUT1, also known as SLC2A1, is a major glucose transporter in the mammalian blood-brain barrier whose gene is mapped to 1p35-p31.3 and contains 10 exons. It is present at high levels in primate erythrocytes and brain endothelial cells. Not only can transport dehydroascorbic acid (the oxidized form of vitamin C) into the brain, GLUT1 is also likely to contribute to HTLV-associated disorders through interacting with HTLV envelope glycoproteins. Functionally, GLUT1 deficiency causes a decrease in embryonic glucose uptake and apoptosis, which may be involved in diabetic embryopathy, by contrast, an increased expression of GLUT1 in some malignant tumors may suggest a role for glucose-derivative tracers to detect in vivo thyroid cancer metastases by positron-emission tomography scanning.

Selected Validation Data

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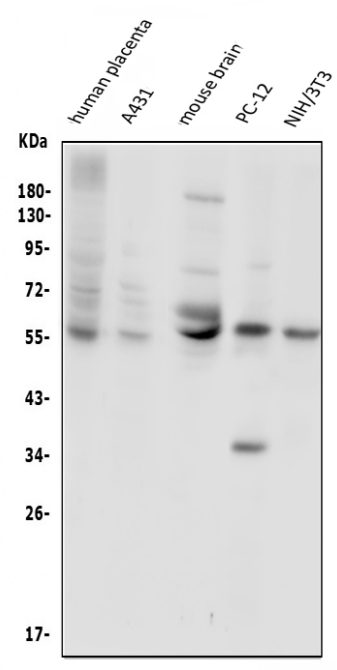

Figure 1. Western blot analysis of SLC2A1 using anti-SLC2A1 antibody (PB9435). The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human placenta tissue lysate, Lane 2: human A431 whole cell lysates,Lane 3: mouse brain tissue lysate, Lane 4: rat PC-12 whole cell lysates,Lane 5: mouse NIH3T3 whole cell lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SLC2A1 antigen affinity purified polyclonal antibody (Catalog # PB9435) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for SLC2A1 at approximately 55KD. The expected band size for SLC2A1 is at 55KD.

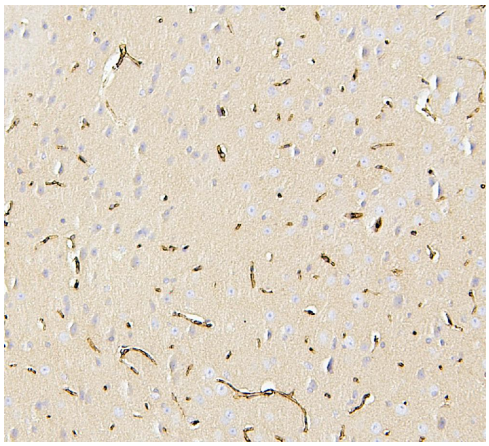

Figure 2. IHC analysis of SLC2A1 using anti-SLC2A1 antibody (PB9435).SLC2A1 was detected in paraffin-embedded section of Mouse Brain Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-SLC2A1 Antibody (PB9435) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

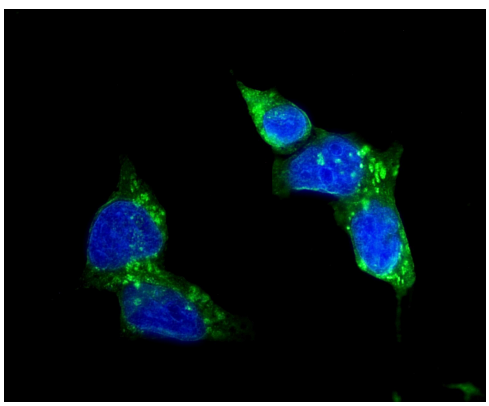

Figure 8. ICC analysis of anti- SLC2A1 antibody (PB9435).was detected in immunocytochemical section of HepG2 cells. Cells were stained using the Dylight488-conjugated Anti-rabbit IgG Secondary Antibody (green)(Catalog # BA1127) and counterstained with DAPI (blue).

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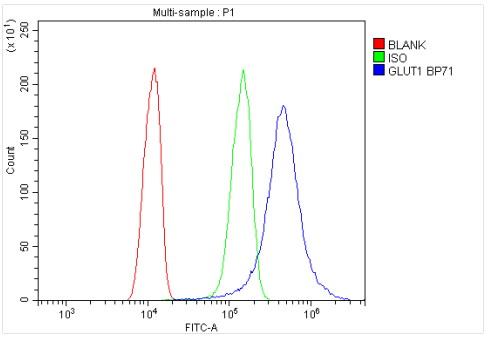

Figure 9. Flow cytometry analysis of A431 cell(1x106) DyLight488 conjugated goat anti-rabbit IgG(blue) was used as secondary antibody.Isotype control antibody (Green line) was rabbit IgG DyLight488. Unlabelled sample (Red line).