

Anti-SLC2A1 Picoband Antibody
Catalog # ABO12125**Specification**

Anti-SLC2A1 Picoband Antibody - Product Information

Application	WB, IHC-P, IHC-F, ICC
Primary Accession	P11166
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Solute carrier family 2, facilitated glucose transporter member 1 (SLC2A1) detection. Tested with WB, IHC-P, IHC-F, ICC in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-SLC2A1 Picoband Antibody - Additional Information

Gene ID 6513

Other Names

Solute carrier family 2, facilitated glucose transporter member 1, Glucose transporter type 1, erythrocyte/brain, GLUT-1, HepG2 glucose transporter, SLC2A1, GLUT1

Calculated MW

54084 MW KDa

Application Details

Immunocytochemistry , 0.5-1 µg/ml, Human, -
Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Human, -
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Cell membrane; Multi-pass membrane protein. Melanosome. Localizes primarily at the cell surface. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

Tissue Specificity

Detected in erythrocytes (at protein level). Expressed at variable levels in many human tissues. .

Protein Name

Solute carrier family 2, facilitated glucose transporter member 1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

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.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the major facilitator superfamily. Sugar transporter (TC 2.A.1.1) family. Glucose transporter subfamily.

Anti-SLC2A1 Picoband Antibody - Protein Information

Name SLC2A1 ([HGNC:11005](#))

Function

Facilitative glucose transporter, which is responsible for constitutive or basal glucose uptake (PubMed: [10227690](http://www.uniprot.org/citations/10227690)), PubMed: [10954735](http://www.uniprot.org/citations/10954735), PubMed: [18245775](http://www.uniprot.org/citations/18245775), PubMed: [19449892](http://www.uniprot.org/citations/19449892), PubMed: [25982116](http://www.uniprot.org/citations/25982116), PubMed: [27078104](http://www.uniprot.org/citations/27078104), PubMed: [32860739](http://www.uniprot.org/citations/32860739)). Has a very broad substrate specificity; can transport a wide range of aldoses including both pentoses and hexoses (PubMed: [18245775](http://www.uniprot.org/citations/18245775), PubMed: [19449892](http://www.uniprot.org/citations/19449892)). Most important energy carrier of the brain: present at the blood-brain barrier and assures the energy- independent, facilitative transport of glucose into the brain (PubMed: [10227690](http://www.uniprot.org/citations/10227690)). In association with BSG and NXNL1, promotes retinal cone survival by increasing glucose uptake into photoreceptors (By similarity). Required for mesendoderm differentiation (By similarity).

Cellular Location

Cell membrane; Multi-pass membrane protein. Melanosome. Photoreceptor inner segment {ECO:0000250|UniProtKB:P17809}. Note=Localizes primarily at the cell surface (PubMed:18245775, PubMed:19449892, PubMed:23219802, PubMed:24847886, PubMed:25982116). Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065)

Tissue Location

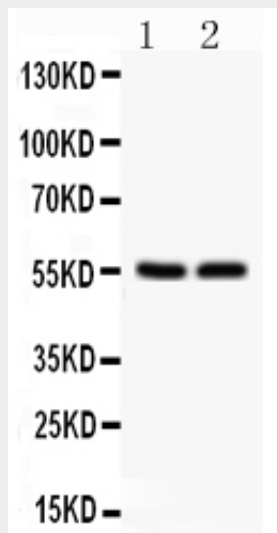
Detected in erythrocytes (at protein level). Expressed at variable levels in many human tissues

Anti-SLC2A1 Picoband Antibody - Protocols

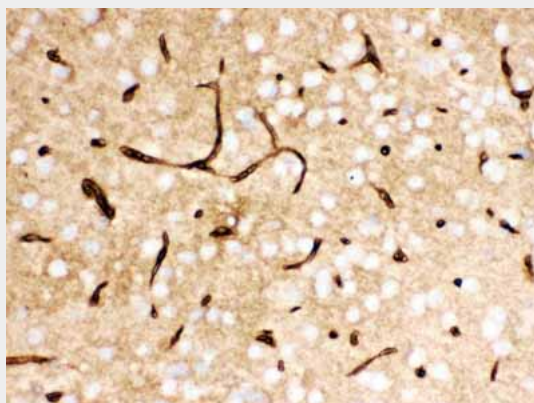
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

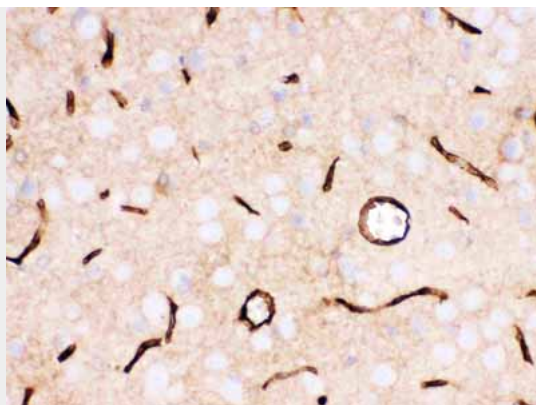
Anti-SLC2A1 Picoband Antibody - Images



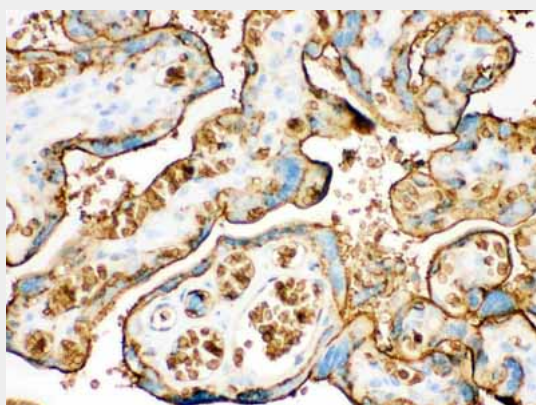
Anti- SLC2A1 Picoband antibody, ABO12125, Western blotting
All lanes: Anti SLC2A1 (ABO12125) at 0.5ug/ml
Lane 1: HELA Whole Cell Lysate at 40ug
Lane 2: JURKAT Whole Cell Lysate at 40ug
Predicted bind size: 55KD
Observed bind size: 55KD



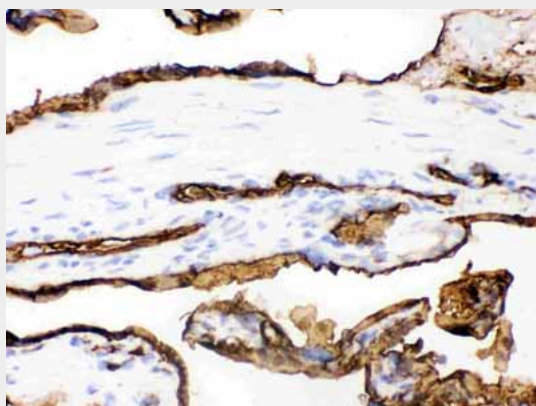
Anti- SLC2A1 Picoband antibody, ABO12125, IHC(P)
IHC(P): Mouse Brain Tissue



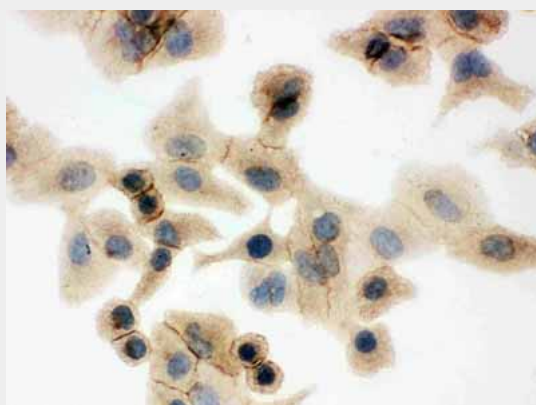
Anti- SLC2A1 Picoband antibody, ABO12125, IHC(P)IHC(P): Rat Brain Tissue



Anti- SLC2A1 Picoband antibody, ABO12125, IHC(P)IHC(P): Human Placenta Tissue



Anti- SLC2A1 Picoband antibody, ABO12125, IHC(F)IHC(F): Human Placenta Tissue



Anti- SLC2A1 Picoband antibody, ABO12125, ICCICC: A549 Cell

Anti-SLC2A1 Picoband Antibody - Background

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.