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Anti-SLC2A1 Picoband Antibody

Catalog # ABO12125

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.

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
Application Details	Immunocytochemistry , 0.5-1 □g/ml, Human, - Immunohistochemistry(Frozen Section), 0.5-1 □g/ml, Human, - Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/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. .
Source	Eukaryota
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 r˚Constitution, 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.

Protein Information

Name	SLC2A1 (HGNC:11005)
Function	Facilitative glucose transporter, which is responsible for constitutive or basal glucose uptake (PubMed:10227690, PubMed:10954735, PubMed:18245775, PubMed:19449892, PubMed:25982116, PubMed:27078104, PubMed:32860739). Has a very broad substrate specificity; can transport a wide range of aldoses including both pentoses and hexoses (PubMed:18245775, PubMed: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). 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

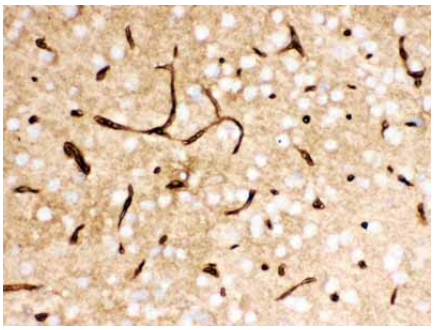
Background

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.

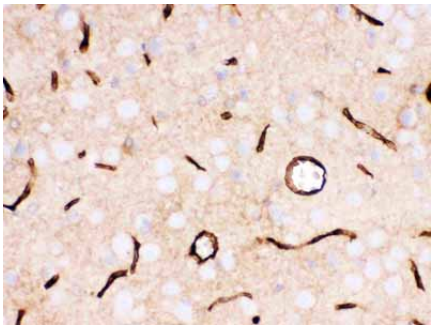
Images

Anti- SLC2A1 Picoband antibody, ABO12125, Western blottingAll lanes: Anti SLC2A1 (ABO12125) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: JURKAT Whole Cell Lysate at 40ugPredicted bind size: 55KDObserved bind size: 55KD

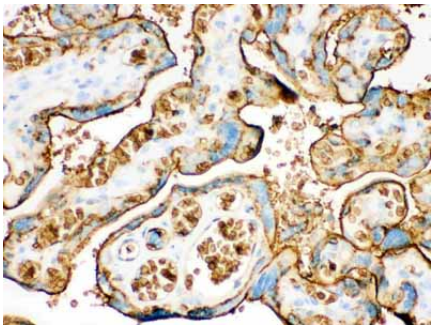




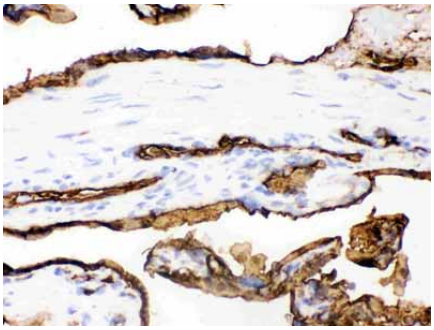
Anti- SLC2A1 Picoband antibody, ABO12125, IHC(P)IHC(P): Mouse Brain Tissue



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

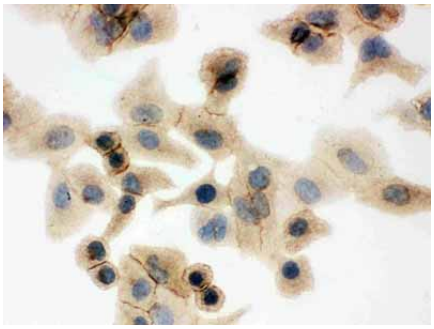


Anti- SLC2A1 Picoband antibody, ABO12125, IHC(P)IHC(P): Human Placenta Tissue



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

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



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