

Anti-SLC2A1 Antibody
Catalog # ABO10577**Specification****Anti-SLC2A1 Antibody - Product Information**

Application	WB
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 in Human;Mouse;Rat.

Reconstitution

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

Anti-SLC2A1 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

Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

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 Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human SLC2A1(477-492aa KTPEELFHPLGADSQV), identical to the related mouse and rat sequences.

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.

Anti-SLC2A1 Antibody - 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

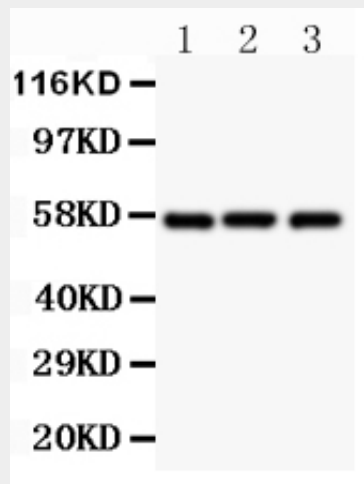
Anti-SLC2A1 Antibody - Protocols

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 Antibody - Images



Anti-SLC2A1 antibody, ABO10577, Western blotting All lanes: Anti SLC2A1(ABO10577) at 0.5ug/ml Lane 1: Rat Liver Tissue Lysate at 50ug Lane 2: SW620 Whole Cell Lysate at 40ug Lane 3: 293T Whole Cell Lysate at 40ug Predicted bind size: 57KD Observed bind size: 57KD

Anti-SLC2A1 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.