


Product datasheet

PE Anti-Glucose Transporter GLUT1 antibody [EPR3915] ab209449

Recombinant RabMAb

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Overview

Product name	PE Anti-Glucose Transporter GLUT1 antibody [EPR3915]
Description	PE Rabbit monoclonal [EPR3915] to Glucose Transporter GLUT1
Host species	Rabbit
Conjugation	PE. Ex: 488nm, Em: 575nm
Tested applications	Suitable for: ICC/IF, Flow Cyt (Intra)
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Flow Cyt (intra): HepG2 cells. ICC/IF: HepG2 cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot. Store at +4°C. Do Not Freeze. Store In the Dark.
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: 1% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal

Clone number EPR3915
Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab209449 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/500. This product gave a positive signal in HepG2 cells fixed with 4% formaldehyde (10 min) and 100% methanol (5 min)
Flow Cyt (Intra)		1/2500. ab209478 - Rabbit monoclonal IgG (Phycoerythrin), is suitable for use as an isotype control with this antibody.

Target

Function Facilitative glucose transporter. This isoform may be responsible for constitutive or basal glucose uptake. Has a very broad substrate specificity; can transport a wide range of aldoses including both pentoses and hexoses.

Tissue specificity Expressed at variable levels in many human tissues.

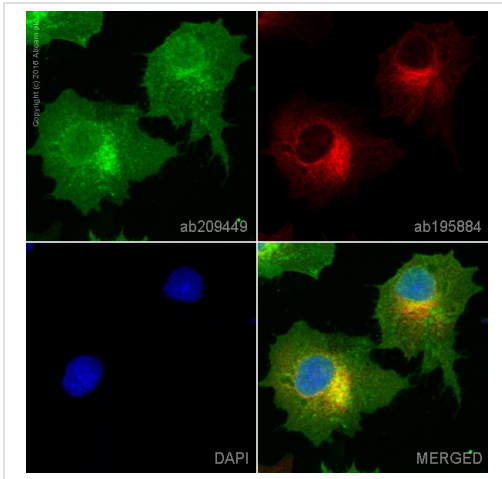
Involvement in disease Defects in SLC2A1 are the cause of glucose transporter type 1 deficiency syndrome (GLUT1DS) [MIM:606777]; also known as blood-brain barrier glucose transport defect. This disease causes a defect in glucose transport across the blood-brain barrier. It is characterized by infantile seizures, delayed development, and acquired microcephaly.
Defects in SLC2A1 are the cause of dystonia type 18 (DYT18) [MIM:612126]. DYT18 is an exercise-induced paroxysmal dystonia/dyskinesia. Dystonia is defined by the presence of sustained involuntary muscle contraction, often leading to abnormal postures. DYT18 is characterized by attacks of involuntary movements triggered by certain stimuli such as sudden movement or prolonged exercise. In some patients involuntary exertion-induced dystonic, choreoathetotic, and ballistic movements may be associated with macrocytic hemolytic anemia.

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

Post-translational modifications Phosphorylated upon DNA damage, probably by ATM or ATR.

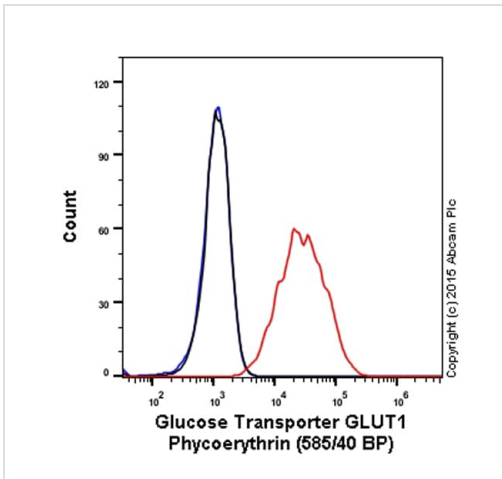
Cellular localization Cell membrane. Melanosome. Localizes primarily at the cell surface (By similarity). Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

Images



Immunocytochemistry/ Immunofluorescence - PE
 Anti-Glucose Transporter GLUT1 antibody
 [EPR3915] (ab209449)

ab209449 staining Glucose Transporter GLUT1 in HepG2 cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab209449 at 1/500 dilution (Pseudocolored in green) and **ab195884**, Rat monoclonal to Tubulin (Alexa Fluor® 647), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Flow Cytometry (Intracellular) - PE Anti-Glucose
 Transporter GLUT1 antibody [EPR3915] (ab209449)

Overlay histogram showing HepG2 cells stained with ab209449 (red line). The cells were fixed with 4% formaldehyde (10 min) and then permeabilized with 90% methanol (-20°C) for 30 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab209449, 1/2500 dilution) for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) Phycorythrin (**ab209478**) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 20 mW Solid State Blue Laser (488nm) and 585/40 bandpass filter.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

PE Anti-Glucose Transporter GLUT1 antibody
[EPR3915] (ab209449)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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