

Rabbit GLUT1 Polyclonal Antibody | anti-GLUT1 antibody

Phospho-GLUT1 (Ser490) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329294	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry

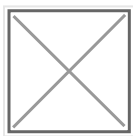
PRODUCT SYNONYMS

GLUT1; Polyclonal Antibody; Phospho-GLUT1 (Ser490) Antibody; Choreoathetosis/spasticity episodic (paroxysmal choreoathetosis/spasticity); CSE; DYT17; DYT18; DYT9; EIG12; erythrocyte/brain; Erythrocyte/hepatoma glucose transporter; facilitated glucose transporter member 1; Glucose transporter 1; Glucose transporter type 1; GLUT; GLUT-1; GLUT1DS; GLUTB; GT1; GTG1; Gtg3; GTR1_HUMAN; HepG2 glucose transporter; HTLVR; Human T cell leukemia virus (I and II) receptor; MGC141895; MGC141896; PED; RATGTG1; Receptor for HTLV 1 and HTLV 2; SLC2A1; Solute carrier family 2 (facilitated glucose transporter); member 1; Solute carrier family 2; anti-GLUT1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-GLUT1 (Ser490) Antibody detects endogenous levels of GLUT1 only when phosphorylated at Ser490. Tissue Specificity: Detected in erythrocytes (at protein level). Expressed at variable levels in many human tissues.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-GLUT1 antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry)
Immunogen	A synthesized peptide derived from human GLUT1 around the phosphorylation site of Ser490.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylation at Ser-226 by PKC promotes glucose uptake by increasing cell membrane localization.
Subunit Structure	Interacts with GIPC (via PDZ domain) (By similarity). Found in a complex with ADD2, DMTN and SLC2A1. Interacts (via C-terminus cytoplasmic region) with DMTN isoform 2. Interacts with SNX27; the interaction is required when endocytosed to prevent degradation in lysosomes and promote recycling to the plasma membrane. Interacts with STOM. Interacts with SGTA (via Gln-rich region) (By similarity).
Similarity	Belongs to the major facilitator superfamily. Sugar transporter (TC 2.A.1.1) family. Glucose transporter subfamily.
Subcellular Location	Cell membrane>Multi-pass membrane protein. Melanosome. Note: Localizes primarily at the cell surface (PubMed:18245775, PubMed:19449892, PubMed:23219802, PubMed:25982116, PubMed:24847886). Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065).
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



Application Data

At 25 degree C. Samples were then incubated with primary Ab(At 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody.The nuclear counter stain is DAPI (blue).



IHC (Immunohistochemistry)

Staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Mouse muscle tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-GLUT1 antibody	Facilitative glucose transporter, which is 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. 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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	166795299
NCBI GeneID	6513
NCBI Accession #	NP_006507.2
NCBI GenBank Nucleotide #	NM_006516.2
UniProt Accession #	P11166; O75535; Q147X2; A8K9S6; B2R620; D3DPX0
Molecular Weight	54,084 Da
NCBI Official Full Name	solute carrier family 2, facilitated glucose transporter member 1
NCBI Official Synonym Full Names	solute carrier family 2 (facilitated glucose transporter), member 1
NCBI Official Symbol	SLC2A1
NCBI Official Synonym Symbols	PED; DYT9; GLUT; DYT17; DYT18; EIG12; GLUT1; HTLVR; GLUT1DS
NCBI Protein Information	solute carrier family 2, facilitated glucose transporter member 1; GLUT-1; hepG2 glucose transporter; glucose transporter type 1, erythrocyte/brain; human T-cell leukemia virus (I and II) receptor
UniProt Protein Name	Solute carrier family 2, facilitated glucose transporter member 1
UniProt Gene Name	SLC2A1
UniProt Synonym Gene Names	GLUT1; GLUT-1
UniProt Entry Name	GTR1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

