Datasheet for ABIN7043691

anti-GLUT1 antibody (Intracellular)

2 Images

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Overview

Quantity:	25 µL
Target:	GLUT1 (SLC2A1)
Binding Specificity:	AA 468-481, Intracellular
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GLUT1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to Glucose Transporter 1
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)RQGGASQSDKTPEE, corresponding to amino acid residues 468-481 of human Glucose transporter 1
Isotype:	IgG
Specificity:	Intracellular, C-terminus
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Rat,mouse - identical
Characteristics:	Anti-GLUT1 Antibody (ABIN7043691, ABIN7044481 and ABIN7044482) is a highly specific antibody directed against an epitope of the human Glucose Transporter 1 protein. The antibody

Product Details

	can be used in western blot and immunohistochemistry applications. It has been designed to recognize GLUT1 from human, rat, and mouse samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	GLUT1 (SLC2A1)
Alternative Name:	SLC2A1 (SLC2A1 Products)
Background:	Glucose transporter 1, Facilitated glucose transporter member 1, SLC2A1,Glucose transporter 1 (GLUT1) belongs to the major facilitator superfamily (MFS), one of the largest and most ubiquitous secondary transporter superfamilies. GLUT1, encoded by SLC2A1, mediates the basal-level cellular uptake of glucose into many tissues. GLUT1 contains 12 membrane-spanning domains with both the amino and carboxyl termini oriented intracellularly. In addition, a single extracellular N-linked glycosylation site is present1.GLUT1 is widely expressed, but it is most abundant in fibroblasts, erythrocytes, and endothelial cells with low levels of expression in muscle, liver, and adipose tissue2.Inactivating mutations of GLUT1, resulting in compromised transport activities for glucose, are associated with diseases as a result of lack of energy supply to the brain3. GLUT1 deficiency syndrome (also known as De Vivo syndrome) is characterized by a spectrum of symptoms including early-onset seizures, microcephaly and retarded development4. In addition, elevated expression levels of GLUT1 have been observed in several cancer types, identifying GLUT1 as an important prognostic indicator for tumorigenesis5. Alternative names: GLUT1, Glucose transporter 1, Facilitated glucose transporter member 1, SLC2A1
Gene ID:	6513
NCBI Accession:	NM_006516
UniProt:	P11166
Pathways:	Sensory Perception of Sound, Dicarboxylic Acid Transport, Warburg Effect

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:400

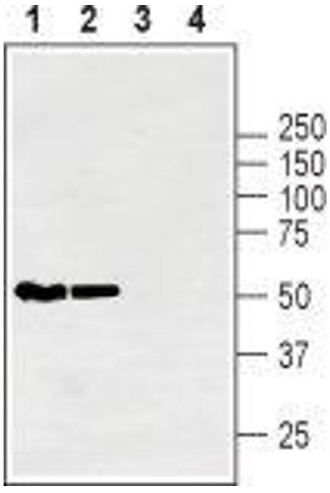
Application Details

	Application Dilutions Western blot wb: 1:500
Comment:	Negative Control: (ABIN7236990) Blocking Peptide: (ABIN7236990)
Restrictions:	For Research Use only

Handling

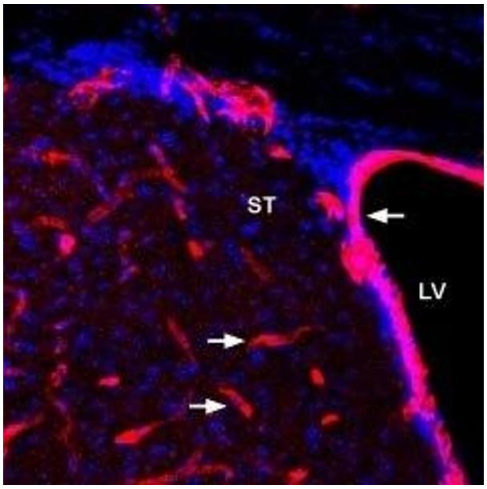
Format:	Lyophilized
Reconstitution:	0.2 mL double distilled water (DDW).
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).

Images



Western Blotting

Image 1. Western blot analysis of rat brain membranes (lanes 1 and 3) and mouse brain membranes (lanes 2 and 4): - 1, 2. Anti-GLUT1 Antibody (ABIN7043691, ABIN7044481 and ABIN7044482), (1:500).3, 4. Anti-GLUT1 Antibody, preincubated with GLUT1 Blocking Peptide (#BLP-GT021).



Immunohistochemistry

Image 2. Expression of Glucose Transporter 1 in mouse striatum and wall of lateral ventricle - Immunohistochemical staining of perfusion-fixed frozen mouse brain sections using Anti-GLUT1 Antibody (ABIN7043691, ABIN7044481 and ABIN7044482), (1:400), followed by donkey-anti-rabbit-Cy3 secondary antibody (red). GLUT1 staining appears in blood vessels (right-pointing arrows) in the striatum (ST) and in the wall of the lateral ventricle (LV, left-pointing arrow). Cell nuclei were stained with DAPI (blue).