Datasheet for ABIN6719416

anti-GLUT1 antibody (AA 92-492)

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Overview

Quantity:	100 µg
Target:	GLUT1 (SLC2A1)
Binding Specificity:	AA 92-492
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This GLUT1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC), Flow Cytometry (FACS)

Product Details

Purpose:	Anti-SLC2A1 Antibody Picoband® (monoclonal, 10C10)
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.
Clone:	10C10
Isotype:	IgG1
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-SLC2A1 Antibody Picoband® (monoclonal, 10C10) (ABIN6719416). Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong

Product Details

	signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Purification:	Immunogen affinity purified.

Target Details

Target:	GLUT1 (SLC2A1)
Alternative Name:	SLC2A1 (SLC2A1 Products)
Background:	Synonyms: Solute carrier family 2, facilitated glucose transporter member 1, Glucose transporter type 1, erythrocyte/brain, GLUT-1, HepG2 glucose transporter, SLC2A1, GLUT1 Tissue Specificity: 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.
Molecular Weight:	55 kDa
Gene ID:	6513
UniProt:	P11166
Pathways:	Sensory Perception of Sound, Dicarboxylic Acid Transport, Warburg Effect

Application Details

Application Notes:	Western blot, 0.1-0.5 µg/mL Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/mL Immunocytochemistry/Immunofluorescence, 5 µg/mL Flow Cytometry (Fixed), 1-3 µg/1x10^6 cells 1.Agus, D. B., Gambhir, S. S., Pardridge, W. M., Spielholz, C., Baselga, J., Vera, J. C., Golde, D. W. : Vitamin C crosses the blood-brain barrier in the oxidized form through the glucose transporters.

Application Details

	J. Clin. Invest. 100: 2842-2848, 1997. 2.Heilig, C. W., Saunders, T., Brosius, F. C., III, Moley, K., Heilig, K., Baggs, R., Guo, L., Conner, D. : Glucose transporter-1-deficient mice exhibit impaired development and deformities that are similar to diabetic embryopathy. Proc. Nat. Acad. Sci. 100: 15613-15618, 2003. 3.Lazar, V., Bidart, J.-M., Caillou, B., Mahe, C., Lacroix, L., Filetti, S., Schlumberger, M. : Expression of the Na(+)/I(-) symporter gene in human thyroid tumors: a comparison study with other thyroid-specific genes. J. Clin. Endocr. Metab. 84: 3228-3234, 1999. 4.Manel, N., Kim, F. J., Kinet, S., Taylor, N., Sitbon, M., Battini, J.-L. : The ubiquitous glucose transporter GLUT-1 is a receptor for HTLV. Cell 115: 449-459, 2003.
Comment:	Tested Species: In-house tested species with positive results. By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections. Other applications have not been tested. Optimal dilutions should be determined by end users.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.