

GLUT1 monoclonal antibody

Catalog: MB66159

Host: Mouse

Reactivity: Human

BackGround:

Glucose transporter 1 (Glut1, SLC2A1) is a widely expressed transport protein that displays a broad range of substrate specificity in transporting a number of different aldose sugars as well as an oxidized form of vitamin C into cells (1,2). Glut1 is responsible for the basal-level uptake of glucose from the blood through facilitated diffusion. Research studies show that Glut1 and the transcription factor HIF-1 α mediate the regulation of glycolysis by O-GlcNAcylation in cancer cells. Additional studies demonstrate that Glut1 is required for CD4 T cell activation and is critical for the expansion and survival of T effector (Teff) cells. Mutations in the corresponding SLC2A1 gene cause GLUT1 deficiency syndromes (GLUT1DS1, GLUT1DS2), a pair of neurologic disorders characterized by delayed development, seizures, spasticity, paroxysmal exercise-induced dyskinesia, and acquired microcephaly. Two other neurologic disorders - dystonia-9 (DYT9) and susceptibility to idiopathic generalized epilepsy 12 (EIG12) - are also caused by mutations in the SLC2A1 gene.

Product:

Mouse IgG2a. Liquid in PBS containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.

Molecular Weight:

~ 54 kDa

Swiss-Prot:

P11166

Purification&Purity:

The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific im-

munogen and the purity is > 95% (by SDS-PAGE).

Applications:

IHC (1/100 - 1/300)

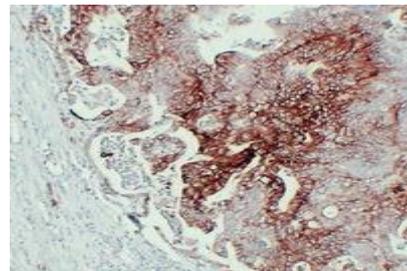
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

Specificity:

Recognizes endogenous levels of GLUT1 protein.

DATA:



Immunohistochemical analysis of GLUT1 staining in human colon carcinoma formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Note:

For research use only, not for use in diagnostic procedure.

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