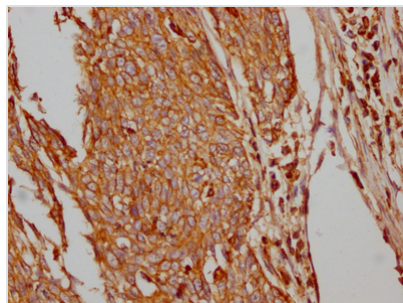




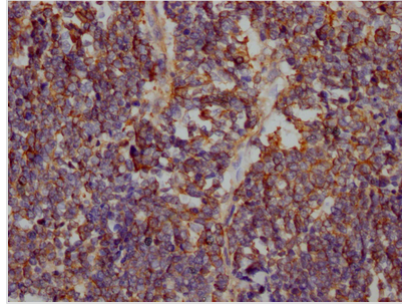
SLC2A1 Recombinant Monoclonal Antibody

Product Code	CSB-RA297401A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P11166
Immunogen	A synthesized peptide derived from human Glucose Transporter GLUT1
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Relevance	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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cancer; Cardiovascular; Metabolism; Signal transduction
Gene Names	SLC2A1
Clone No.	2E1

Image



IHC image of CSB-RA297401A0HU diluted at 1:100 and staining in paraffin-embedded human cervical cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



IHC image of CSB-RA297401A0HU diluted at 1:100 and staining in paraffin-embedded human lung cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

The recombinant monoclonal antibody specific to the SLC2A1 protein was prepared using protein and DNA recombinant technologies. The process began by immunizing mice with a synthetic peptide derived from human SLC2A1. After that, the spleen of the mice was extracted under aseptic conditions and the total RNA of the spleen cells was extracted. The RNA was then reverse transcribed to cDNA, which was used as a template for PCR amplification of the SLC2A1 antibody gene. The obtained SLC2A1 antibody gene was introduced into a vector and then transfected into host cells for culture. The SLC2A1 recombinant monoclonal antibody was purified from the supernatant of the cell culture using affinity chromatography. It was rigorously verified and can be used for detecting the human SLC2A1 protein in ELISA and IHC experiments.

The SLC2A1 protein, also known as GLUT1, is a transmembrane protein that plays a critical role in glucose transport across cell membranes. SLC2A1 functions as a facilitative glucose transporter, allowing glucose to passively diffuse down its concentration gradient across the cell membrane. It is primarily expressed in cells that require glucose as a source of energy, such as red blood cells, brain cells, and the cells lining blood vessels. Mutations in the SLC2A1 gene can lead to a variety of disorders, including glucose transporter type 1 deficiency syndrome (GLUT1DS).