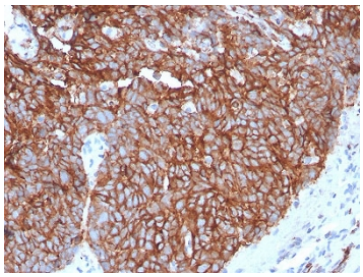
GLUT1 Antibody Recombinant Rabbit MAb GLUT1/3132R / SLC2A1 Glucose Transporter Antibody [clone GLUT1/3132R] (V7457)

Catalog No.	Formulation	Size
V7457-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7457-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7457SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7457IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

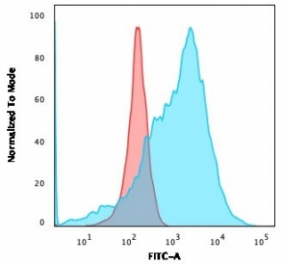
Recombinant RABBIT MONOCLONAL

Bulk quote request

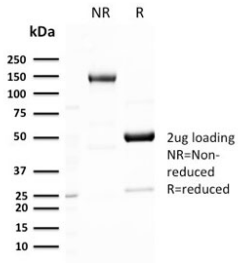
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	GLUT1/3132R
Purity	Protein G affinity chromatography
UniProt	P11166
Localization	Cell surface
Applications	ELISA: 1-2ug/ml for coating (order BSA/sodium azide-free format) Flow cytometry: 1-2ug/10^6 cells Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This recombinant GLUT1 antibody is available for research use only.



GLUT1 Antibody Recombinant Rabbit MAb GLUT1/3132R. Immunohistochemistry analysis of GLUT1 / SLC2A1 in FFPE human tongue tissue shows strong HRP-DAB brown membranous staining in epithelial cells, consistent with the plasma membrane localization of the GLUT1 glucose transporter. The staining outlines the borders of stratified epithelial cells and highlights the characteristic membrane-associated distribution of GLUT1 in metabolically active epithelial tissue. Stromal and connective tissue components show minimal staining, providing contrast to the epithelial signal. Heat induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris buffer with 1mM EDTA for 10-20 minutes followed by cooling at room temperature prior to antibody incubation.



GLUT1 Antibody Recombinant Rabbit MAb GLUT1/3132R. Flow cytometry analysis of human K562 cells stained with recombinant rabbit monoclonal GLUT1 antibody demonstrates a clear rightward shift of the fluorescence signal (blue histogram) compared with the isotype control (red histogram), indicating specific detection of the GLUT1 / SLC2A1 glucose transporter on the analyzed cell population. The fluorescence intensity distribution shows a distinct population of GLUT1-positive cells consistent with surface-associated expression of this facilitative glucose transporter in metabolically active leukemia cells. Data are presented as FITC-A fluorescence intensity normalized to mode, with the recombinant GLUT1 antibody producing strong target-specific staining relative to the control antibody.



SDS-PAGE analysis of purified, BSA-free recombinant GLUT1 antibody GLUT1/3132R as confirmation of integrity and purity.

Description

Glucose transporter 1 (SLC2A1), commonly referred to as GLUT1, is a facilitative glucose transporter responsible for constitutive glucose uptake in many cell types and plays a key role in cellular energy metabolism. GLUT1 Antibody Recombinant Rabbit MAb GLUT1/3132R recognizes the SLC2A1 protein and is produced using recombinant rabbit monoclonal antibody technology designed to provide highly consistent antibody performance and reproducible target recognition. As a recombinant rabbit monoclonal antibody, GLUT1/3132R is generated from a defined antibody sequence that is recombinantly expressed, ensuring stable antibody identity and controlled production across batches. This recombinant rabbit monoclonal antibody format supports reliable recognition of GLUT1 in studies focused on membrane transporter biology and metabolic regulation.

GLUT1 is primarily localized to the plasma membrane where it mediates facilitated diffusion of glucose into cells. This transporter enables basal glucose uptake necessary for ATP production through glycolysis and oxidative metabolism. SLC2A1 is widely expressed in tissues that require continuous glucose supply, including erythrocytes, endothelial cells, epithelial tissues, and cells of the blood-brain barrier. Because of this essential metabolic role, GLUT1 detection is frequently used to investigate glucose transport dynamics and metabolic activity in diverse biological systems.

The recombinant rabbit monoclonal antibody platform used to generate GLUT1 Antibody Recombinant Rabbit MAb GLUT1/3132R provides advantages associated with sequence-defined monoclonal reagents. Recombinant rabbit monoclonal antibodies are derived from a single defined antibody sequence and produced through recombinant expression systems rather than traditional hybridoma propagation. This design helps maintain antibody specificity and reduces variability between production lots. As a result, recombinant rabbit monoclonal antibodies such as GLUT1/3132R

are particularly well suited for research applications that require high reproducibility and stable antibody performance over time.

Rabbit monoclonal antibodies are also widely valued for their ability to recognize epitopes with high affinity and specificity. The recombinant rabbit monoclonal antibody format combines the binding characteristics of rabbit-derived antibodies with the production consistency of recombinant expression systems. This makes GLUT1 Antibody Recombinant Rabbit MAb GLUT1/3132R an effective reagent for detecting SLC2A1 in studies examining glucose transport, metabolic signaling, and cellular adaptation to metabolic stress.

GLUT1 expression is frequently elevated in rapidly proliferating cells and in many tumor types where increased glucose uptake supports enhanced metabolic demand. Upregulation of SLC2A1 is associated with metabolic reprogramming in cancer cells and with cellular responses to hypoxia. Because of these biological roles, the GLUT1 glucose transporter is commonly investigated in studies of tumor metabolism, metabolic adaptation, and cellular energy regulation. The recombinant rabbit monoclonal antibody design of GLUT1/3132R therefore provides a sequence-defined reagent for consistent detection of the GLUT1 glucose transporter in research focused on metabolic biology.

Application Notes

Optimal dilution of the GLUT1 Antibody Recombinant Rabbit MAb GLUT1/3132R should be determined by the researcher.

Immunogen

A portion of amino acids 203-305 from the human protein was used as the immunogen for this recombinant GLUT1 antibody.

Storage

Store the recombinant GLUT1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

SLC2A1 antibody, Glucose transporter 1 antibody, GLUT-1 antibody, Erythrocyte glucose transporter antibody

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