abcam

Product datasheet

Anti-Glucose Transporter GLUT1 antibody [GLUT1/2476] - BSA and Azide free ab237901

3 Images

Overview

Product name	Anti-Glucose Transporter GLUT1 antibody [GLUT1/2476] - BSA and Azide free
Description	Mouse monoclonal [GLUT1/2476] to Glucose Transporter GLUT1 - BSA and Azide free
Host species	Mouse
Tested applications	**Suitable for:** Protein Array, IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment within Human Glucose Transporter GLUT1 aa 203-305. The exact sequence is proprietary. Database link: **P11166**
Positive control	IHC-P: Human breast carcinoma and bladder tissue.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A/G purified
Purification notes	Purified from Bioreactor Concentrate by Protein A/G.
Clonality	Monoclonal
Clone number	GLUT1/2476

Isotype	IgG2b
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab237901 in the following tested applications.

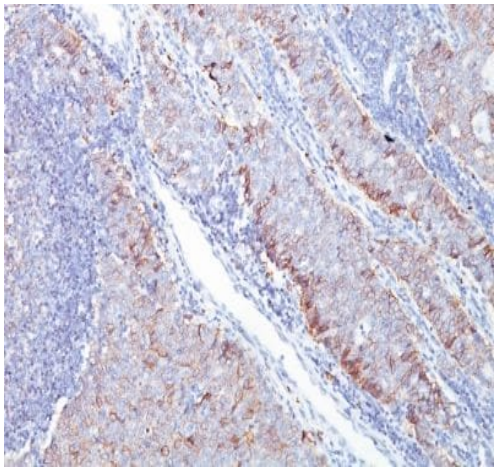
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Protein Array		Use at an assay dependent concentration.
IHC-P		Use a concentration of 1 - 2 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Ibcubate with primary antibody for 30 minutes at room temperature.

Target

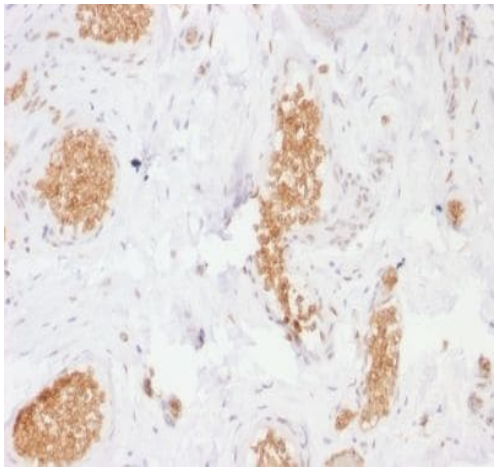
Function	Facilitative glucose transporter. This isoform may be responsible for constitutive or basal glucose uptake. Has a very broad substrate specificity; can transport a wide range of aldoses including both pentoses and hexoses.
Tissue specificity	Expressed at variable levels in many human tissues.
Involvement in disease	Defects in SLC2A1 are the cause of glucose transporter type 1 deficiency syndrome (GLUT1DS) [MIM:606777]; also known as blood-brain barrier glucose transport defect. This disease causes a defect in glucose transport across the blood-brain barrier. It is characterized by infantile seizures, delayed development, and acquired microcephaly. Defects in SLC2A1 are the cause of dystonia type 18 (DYT18) [MIM:612126]. DYT18 is an exercise-induced paroxysmal dystonia/dyskinesia. Dystonia is defined by the presence of sustained involuntary muscle contraction, often leading to abnormal postures. DYT18 is characterized by attacks of involuntary movements triggered by certain stimuli such as sudden movement or prolonged exercise. In some patients involuntary exertion-induced dystonic, choreoathetotic, and ballistic movements may be associated with macrocytic hemolytic anemia.
Sequence similarities	Belongs to the major facilitator superfamily. Sugar transporter (TC 2.A.1.1) family. Glucose transporter subfamily.
Post-translational modifications	Phosphorylated upon DNA damage, probably by ATM or ATR.
Cellular localization	Cell membrane. Melanosome. Localizes primarily at the cell surface (By similarity). Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

Images



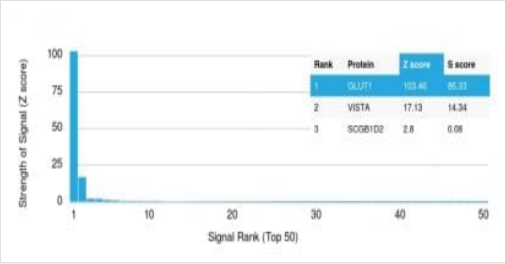
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucose Transporter GLUT1 antibody [GLUT1/2476] - BSA and Azide free (ab237901)

Formalin-fixed, paraffin-embedded human breast carcinoma tissue stained for Glucose Transporter GLUT1 using ab237901 at 2 µg/ml in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucose Transporter GLUT1 antibody [GLUT1/2476] - BSA and Azide free (ab237901)

Formalin-fixed, paraffin-embedded human bladder tissue stained for Glucose Transporter GLUT1 using ab237901 at 2 µg/ml in immunohistochemical analysis.



Protein Array - Anti-Glucose Transporter GLUT1 antibody [GLUT1/2476] - BSA and Azide free (ab237901)

Analysis of Protein Array containing more than 19,000 full-length human proteins using ab237901.

Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.

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