

For Research Use Only

GLUT3 Polyclonal antibody

Catalog Number: 20403-1-AP

41 Publications



Basic Information

Catalog Number: 20403-1-AP	GenBank Accession Number: BC039196	Purification Method: Antigen affinity purification
Size: 150ul, Concentration: 550 µg/ml by Nanodrop and 327 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 6515	Recommended Dilutions: WB 1:500-1:2000 IHC 1:2000-1:8000
Source: Rabbit	Full Name: solute carrier family 2 (facilitated glucose transporter), member 3	
Isotype: IgG	Calculated MW: 496 aa, 54 kDa	
Immunogen Catalog Number: AG14203	Observed MW: 48-60 kDa	

Applications

Tested Applications:

IHC, WB, ELISA

Cited Applications:

IF, IHC, WB

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB: HEK-293 cells, HeLa cells, Jurkat cells, mouse brain tissue, U-251 cells

IHC: mouse testis tissue, human lung cancer tissue, human breast cancer tissue, human placenta tissue, mouse brain tissue

Background Information

GLUT3 (SLC2A3) belongs to the glucose transporter family (GLUTs) which mediates the transport of glucose across cellular membranes in mammalian cells. There are three subclasses within GLUTs: class I comprises the classical transporters GLUT1-4 and GLUT14; class II contains the "odd" isoforms GLUT5, 7, 9, and 11; the isoforms GLUT6, 8, 10, 12 and the proton driven myoinositol transporter HMIT (GLUT13) belong to class III. GLUT3 is considered as a neuron-specific glucose transporter because of its dominant expression in the brain in various species. However, besides the brain GLUT3 is also expressed in tissues with high demand for glucose such as sperm, preimplantation embryos, circulating white blood cells, and an array of carcinoma cell lines. Recently GLUT3 has been identified as a sensitive and specific marker for embryonal carcinomas and yolk tumors. The GLUT14 is believed to be the duplicate gene of GLUT3 given to the high identity in sequence between them. This antibody was generated against the internal region of human GLUT3 and may cross-react with GLUT14. 20403-1-AP antibody detects the bands around 48-60 kDa which depend on the glycosylation state in SDS-PAGE. (PMID: 23866118, 10336639, 9124334, 1505464, 23343953, 28574837)

Notable Publications

Author	Pubmed ID	Journal	Application
Xing Ge	34547719	Aging (Albany NY)	IF
De Huang	25242319	Cell Rep	WB
Fangfang Wang	32949999	EBioMedicine	IF

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

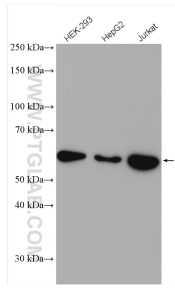
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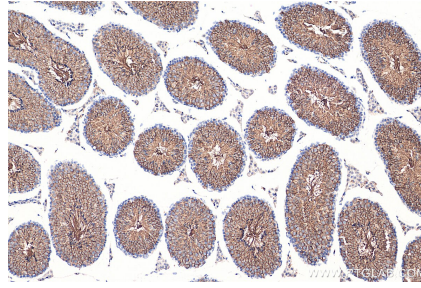
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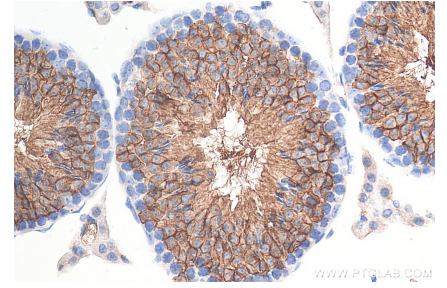
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 20403-1-AP (GLUT3 antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 20403-1-AP (GLUT3 antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 20403-1-AP (GLUT3 antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).