

For Research Use Only

GLUT3 Polyclonal antibody

Catalog Number: 20403-1-AP

Featured Product

74 Publications



Basic Information

Catalog Number:

20403-1-AP

Size:

150ul, Concentration: 550 ug/ml by Nanodrop and 327 ug/ml by Bradford method using BSA as the standard;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG14203

GenBank Accession Number:

BC039196

GeneID (NCBI):

6515

UNIPROT ID:

P11169

Full Name:

solute carrier family 2 (facilitated glucose transporter), member 3

Calculated MW:

496 aa, 54 kDa

Observed MW:

48-60 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:2000-1:10000

IHC 1:2000-1:8000

IF/ICC 1:200-1:800

Applications

Tested Applications:

WB, IHC, IF/ICC, ELISA

Cited Applications:

WB, IHC, IF, IP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, goat

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, U-251 cells, Jurkat cells, HeLa cells, C6 cells, mouse brain tissue, rat brain tissue, HepG2 cells

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

IF/ICC: Caco-2 cells,

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

*** 20ul sizes contain 0.1% BSA

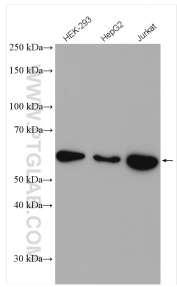
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

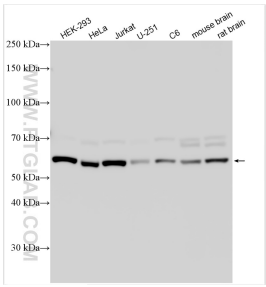
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

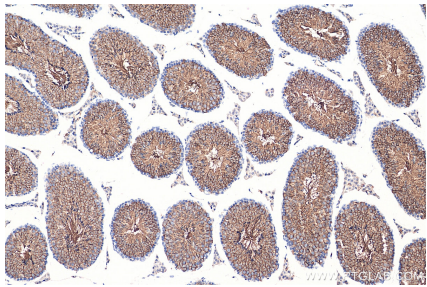
Selected Validation Data



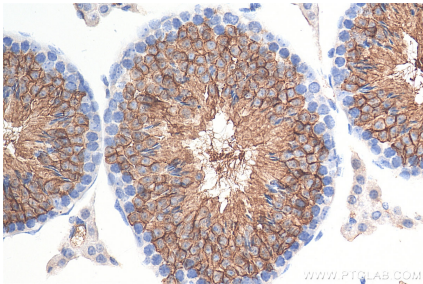
Various lysates were subjected to SDS PAGE followed by western blot with 20403-1-AP (GLUT3 antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.



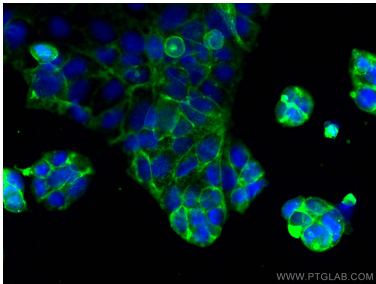
Various lysates were subjected to SDS PAGE followed by western blot with 20403-1-AP (GLUT3 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



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).



Immunofluorescent analysis of (-20°C Ethanol) fixed Caco-2 cells using GLUT3 antibody (20403-1-AP) at dilution of 1:400 and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L).