For Research Use Only

GLAST Polyclonal antibody

Catalog Number:20785-1-AP 21 Publications

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Basic Information

Catalog Number:
20785-1-AP

Size:
150ul , Concentration: 600 μg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG14177

GenBank Accession Number:
BC037310

GeneID (NCBI):
6507

UNIPROT ID:
P43003

Full Name:
solute carrier family 1 (glial high affinity glutamate transporter), member 3

Calculated MW:
542 aa, 60 kDa

Observed MW:
50-55 kDa, 90-100 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:500-1:2000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:20-1:200
IF 1:200-1:800

Applications

Tested Applications:
WB, IP, IF, FC, IHC, ELISA

Cited Applications:
WB, IP, IF, IHC, CoIP

Species Specificity:
human, mouse, rat

Cited Species:
human, rat, mouse, cow

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 : Neuro-2a cells, C6 cells, mouse brain tissue

IP : mouse brain tissue,

IHC : human brain tissue, mouse brain tissue

IF : Neuro-2a cells,

Background Information

SLC1A3, also known as EAAT-1 or GLAST, is a membrane-bound protein localized in glial cells and pre-synaptic glutamatergic nerve endings. It transports the excitatory neurotransmitters L-glutamate and D-aspartate, which is essential for terminating the postsynaptic acction of glutamate. Recently, a correlation between expression/function of glial EAAT-1 and tumor proliferation has been reported. The exceptionally rare expression of EAAT-1 in non-neoplastic choroid plexus (CP) compared to choroid plexus tumors (CPT) may distinguishes neoplastic from normal CP. There are a number of splicing variants of SLC1A3, like GLAST1a and GLAST1b, exist due to the exon skipping. It also undergo glycosylation. Variety of bands can be observed in the western blotting assay: 50-55 kDa represents the unglycosylated GLAST1a or GLAST1b, 65-70 kDa correspond to the glycosylated proteins, larger proteins between 90-130 kDa may be the multimers of SLC1A3. (11086157, 17471058, 12546822)

Notable Publications

Author	Pubmed ID	Journal	Application
Wenlong Zhang	33093440	Cell Death Dis	WB
Ziyi Zhou	36295111	Life (Basel)	IF
Di Qu	36254458	ACS Chem Neurosci	WB,IF

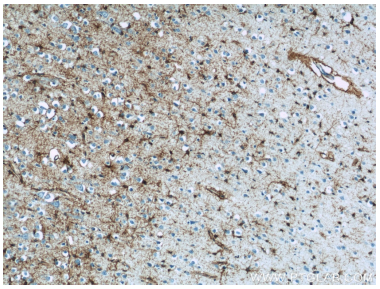
Storage

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

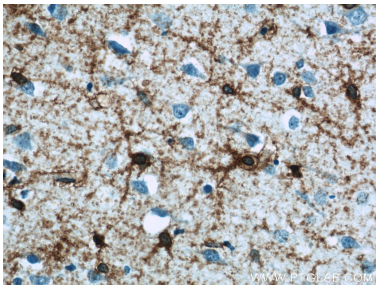
*** 20ul sizes contain 0.1% BSA

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

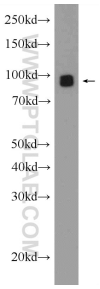
Selected Validation Data



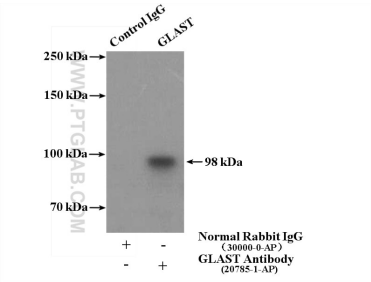
Immunohistochemical analysis of paraffin-embedded human brain tissue slide using 20785-1-AP (GLAST antibody at dilution of 1:50 (under 10x lens).



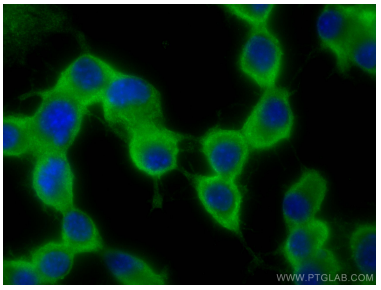
Immunohistochemical analysis of paraffin-embedded human brain tissue slide using 20785-1-AP (GLAST antibody at dilution of 1:50 (under 40x lens).



Neuro-2a cells were subjected to SDS PAGE followed by western blot with 20785-1-AP (GLAST antibody at dilution of 1:1000 incubated at room temperature for 1.5 hours.



IP result of anti-GLAST (IP:20785-1-AP, 4ug; Detection:20785-1-AP 1:500) with mouse brain tissue lysate 3000ug.



Immunofluorescent analysis of (-20°C Ethanol) fixed Neuro-2a cells using GLAST antibody (20785-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).

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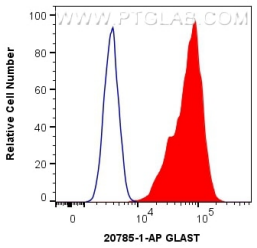

1X10^6 Neuro-2a cells were intracellularly stained with 0.4 ug Anti-Human GLAST (20785-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).