

For Research Use Only

GLAST Polyclonal antibody

Catalog Number: 20785-1-AP **21 Publications**



Basic Information

Catalog Number: 20785-1-AP	GenBank Accession Number: BC037310	Purification Method: Antigen affinity purification
Size: 500 µg/ml	GeneID (NCBI): 6507	Recommended Dilutions: WB 1:500-1:2000
Source: Rabbit	UNIPROT ID: P43003	IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate
Isotype: IgG	Full Name: solute carrier family 1 (glial high affinity glutamate transporter), member 3	IHC 1:20-1:200
Immunogen Catalog Number: AG14177	Calculated MW: 542 aa, 60 kDa	IF 1:200-1:800
	Observed MW: 50-55 kDa, 90-100 kDa	

Applications

Tested Applications: FC, IF/ICC, IHC, IP, WB, ELISA	Positive Controls: WB : Neuro-2a cells, C6 cells, mouse brain tissue
Cited Applications: CoIP, IF, IHC, IP, WB	IP : mouse brain tissue,
Species Specificity: human, mouse, rat	IHC : human brain tissue, mouse brain tissue
Cited Species: human, rat, mouse, cow	IF : Neuro-2a cells,

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

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 action 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

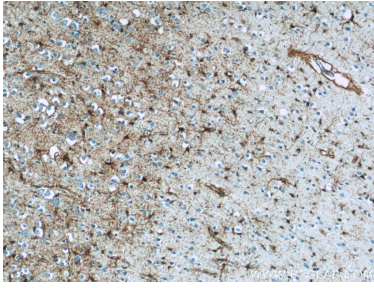
Storage

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

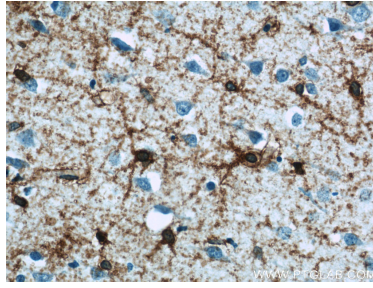
For technical support and original validation data for this product please contact:
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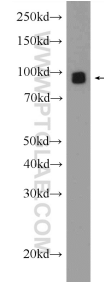
Selected Validation Data



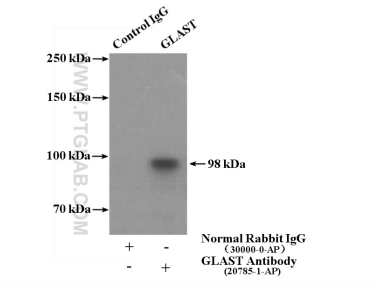
Immunohistochemical analysis of paraffin-embedded human brain tissue slide using 20785-1-AP (GLAST antibody at dilution of 1:50 (under 10x lens).



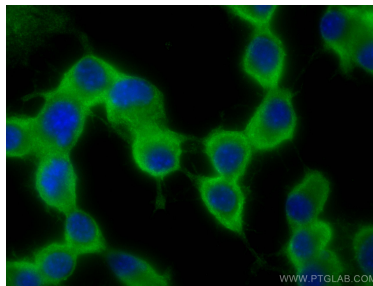
Immunohistochemical analysis of paraffin-embedded human brain tissue slide using 20785-1-AP (GLAST antibody at dilution of 1:50 (under 40x lens).



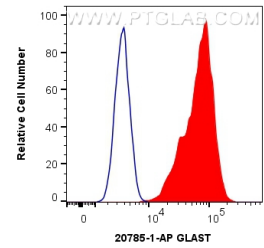
Neuro-2a cells were subjected to SDS PAGE followed by western blot with 20785-1-AP (GLAST antibody at dilution of 1:1000 incubated at room temperature for 1.5 hours.



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).



1X10⁶ 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).