

For Research Use Only

GLAST/EAAT1 Polyclonal antibody

Catalog Number: 20785-1-AP

Featured Product

35 Publications



Basic Information

Catalog Number:

20785-1-AP

Concentration:

600 ug/ml

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

IF/ICC: 1:200-1:800

FC (Intra): 0.40 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IF/ICC, FC (Intra), IP, ELISA

Cited Applications:

WB, IHC, IF, IP, ColP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, cow

Positive Controls:

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

IP : mouse brain tissue,

IF/ICC : Neuro-2a cells,

FC (Intra) : 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 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, pH7.3

Aliquoting is unnecessary for -20°C storage

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

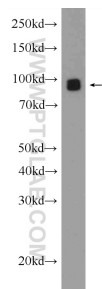
T: 4006900926

E: Proteintech-CN@ptglab.com

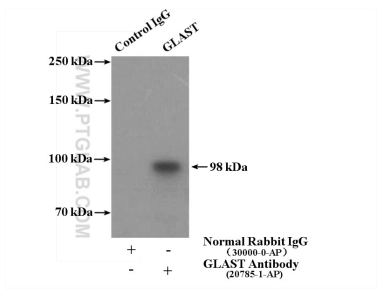
W: ptgcn.com

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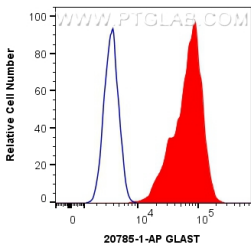
Selected Validation Data



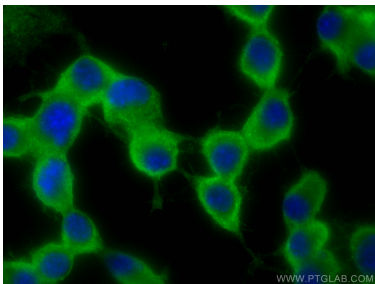
Neuro-2a cells were subjected to SDS PAGE followed by western blot with 20785-1-AP (GLAST antibody at dilution of 1:1000 incubated at room temperature for 1.5 hours.



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



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).



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).