

For Research Use Only

# GLAST/EAAT1 Polyclonal antibody

Catalog Number: 20785-1-AP

Featured Product

31 Publications



## Basic Information

### Catalog Number:

20785-1-AP

### Size:

150ul, Concentration: 600 ug/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

IF/ICC 1:200-1:800

## Applications

### Tested Applications:

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

### Cited Applications:

WB, IHC, IF, IP, CoIP

### 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,

## 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

\*\*\* 20ul sizes contain 0.1% BSA

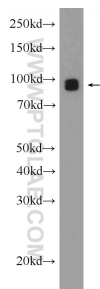
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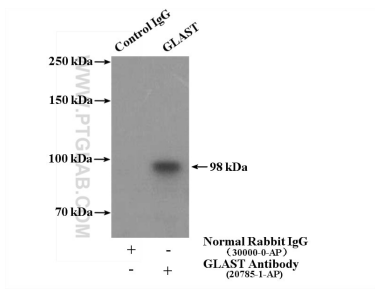
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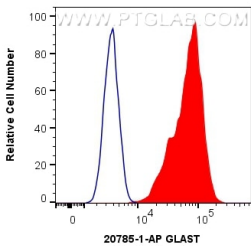
Selected Validation Data



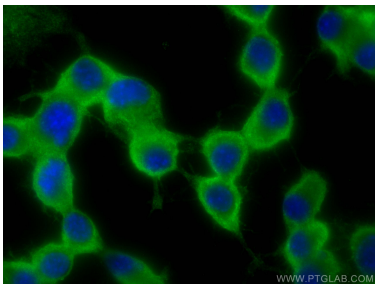
Neuro-2a cells were subjected to SDS PAGE followed by western blot with 20785-1-AP (GLAST antibody at dilution of 1:1000 incubated at room temperature for 1.5 hours.



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



1X10<sup>6</sup> 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).