

# Glutamate receptor 2 Polyclonal antibody

Catalog Number: 11994-1-AP

32 Publications

## Basic Information

### Catalog Number:

11994-1-AP

### Size:

150ul, Concentration: 750 µg/ml by Nanodrop and 420 µg/ml by Bradford method using BSA as the standard;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG2662

### GenBank Accession Number:

BC010574

### GeneID (NCBI):

2891

### UNIPROT ID:

P42262

### Full Name:

glutamate receptor, ionotropic, AMPA 2

### Calculated MW:

883 aa, 99 kDa

### Observed MW:

94-105 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:2000-1:12000

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF 1:50-1:500

## Applications

### Tested Applications:

FC (Intra), IF, IHC, IP, WB, ELISA

### Cited Applications:

CoIP, IF, IHC, IP, WB

### Species Specificity:

human, mouse, rat

### Cited Species:

human, rat, mouse

**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 : mouse brain tissue, rat brain tissue

IP : mouse brain tissue,

IHC : mouse brain tissue,

IF : mouse eye tissue,

## Background Information

Glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain and are activated in a variety of normal neurophysiologic processes. GRIA2 (glutamate receptor 2, GluR-2) belongs to a family of glutamate receptors that are sensitive to alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate (AMPA), and function as ligand-activated cation channels that mediate the fast component of excitatory postsynaptic currents in neurons of the central nervous system. These channels are assembled from 4 related subunits, GRIA1-4. The presence of GRIA2 in the heteromeric AMPA receptors impermeabilizes it to calcium, preventing possible calcium-mediated toxicity.

## Notable Publications

Author	Pubmed ID	Journal	Application
Pengcheng Ma	36179027	Sci Adv	WB, CoIP
YuanYuan Hou	34710402	Exp Neurol	WB
Joanna Gruszczynska-Biegala	27826230	Front Cell Neurosci	WB

## 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

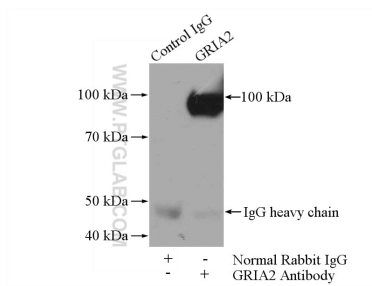
For technical support and original validation data for this product please contact:

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

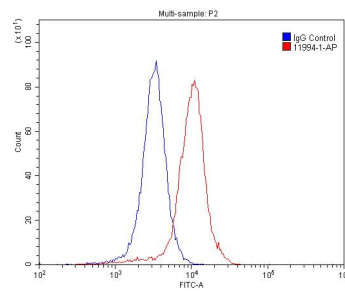
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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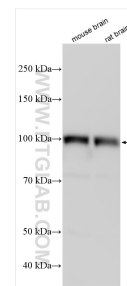
## Selected Validation Data



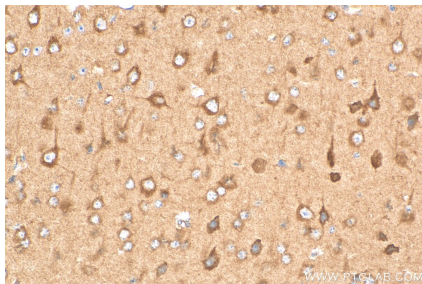
IP result of anti-Glutamate receptor 2 (IP:11994-1-AP, 4ug; Detection:11994-1-AP 1:500) with mouse brain tissue lysate 4000ug.



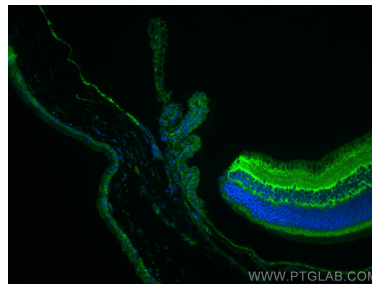
1X10<sup>6</sup> SH-SY5Y cells were stained with 0.2ug Glutamate receptor 2 antibody (11994-1-AP, red) and control antibody (blue). Fixed with 4% PFA blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1500.



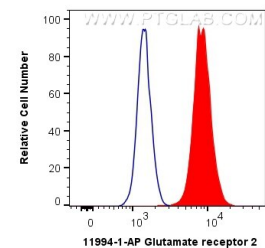
Various lysates were subjected to SDS PAGE followed by western blot with 11994-1-AP (Glutamate receptor 2 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 11994-1-AP (Glutamate receptor 2 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed mouse eye tissue using Glutamate receptor 2 antibody (11994-1-AP) at dilution of 1:200 and Coralite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



1X10<sup>6</sup> SH-SY5Y cells were intracellularly stained with 0.4 ug Anti-Human Glutamate receptor 2 (11994-1-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).