

For Research Use Only

# NMDAR2B/GRIN2B Polyclonal antibody

Catalog Number: 21920-1-AP

Featured Product

118 Publications



## Basic Information

### Catalog Number:

21920-1-AP

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG16318

### GenBank Accession Number:

BC113620

### GeneID (NCBI):

2904

### UNIPROT ID:

Q13224

### Full Name:

glutamate receptor, ionotropic, N-methyl D-aspartate 2B

### Calculated MW:

1484 aa, 166 kDa

### Observed MW:

166 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:500-1:4000

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

IHC: 1:50-1:500

IF-P: 1:50-1:500

IF-Fro: 1:50-1:500

FC (Intra): 0.20 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

### Tested Applications:

WB, IHC, IF-P, IF-Fro, FC (Intra), IP, ELISA

### Cited Applications:

WB, IHC, IF, IP, CoIP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, zebra finch

**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, human brain tissue, rat brain tissue

IP: mouse brain tissue,

IHC: mouse brain tissue, human brain tissue

IF-P: mouse brain tissue,

IF-Fro: mouse brain tissue,

FC (Intra): SH-SY5Y cells,

## Background Information

GRIN2B (also known as GluN2B or NMDAR2B) is a member of the N-methyl-D-aspartate (NMDA) receptor family within the ionotropic glutamate receptor superfamily. NMDA receptors are widely expressed in the central nervous system and play a major role in excitatory synaptic transmission and plasticity (PMID: 23223336). NMDA receptors large multi-subunit complexes arranged into heteromeric assemblies composed of four homologous subunits within a repertoire of over 10 different subunits: eight GluN1 isoforms, four GluN2 subunits (A-D) and two GluN3 subunits (A and B) (PMID: 21395862). Naturally occurring mutations within GRIN2B gene are associated with neurodevelopmental disorders including autism spectrum disorder, attention deficit hyperactivity disorder, epilepsy, and schizophrenia.

## Notable Publications

Author	Pubmed ID	Journal	Application
Pengcheng Ma	36179027	Sci Adv	WB
Qingyang Zhang	34551807	Mol Neurodegener	WB
Xin Peng	34549339	J Mol 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, pH7.3

Aliquoting is unnecessary for -20°C storage

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

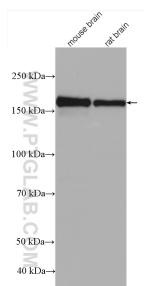
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

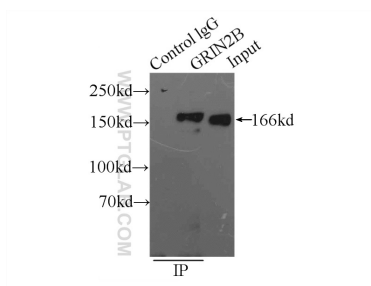
W: [ptgcn.com](http://ptgcn.com)

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

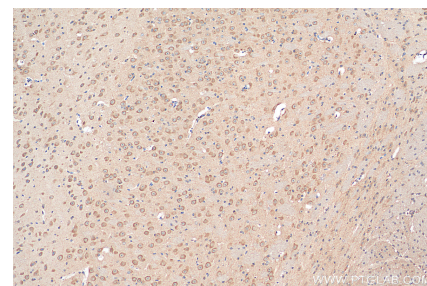
## Selected Validation Data



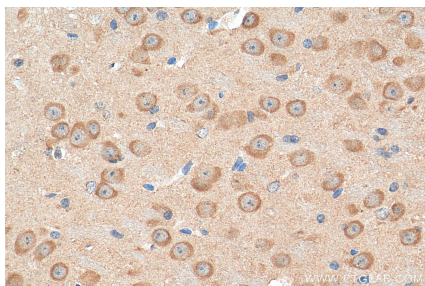
mouse brain tissue were subjected to SDS PAGE followed by western blot with 21920-1-AP (NMDAR2B/GRIN2B antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



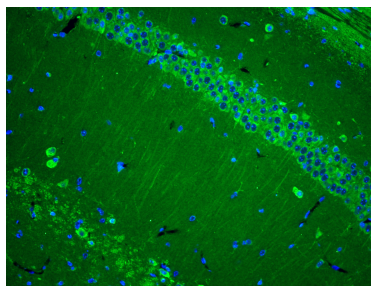
IP result of anti-NMDAR2B/GRIN2B (IP:21920-1-AP, 3ug; Detection:21920-1-AP 1:2000) with mouse brain tissue lysate 6000ug.



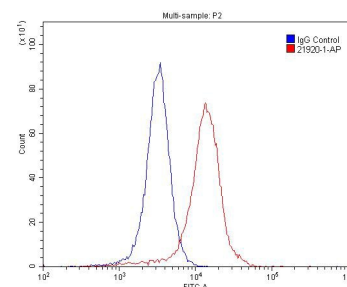
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 21920-1-AP (NMDAR2B/GRIN2B antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



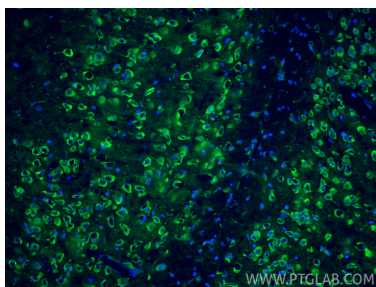
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 21920-1-AP (NMDAR2B/GRIN2B antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using NMDAR2B/GRIN2B antibody (21920-1-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 stained with 0.2ug NMDAR2B/GRIN2B antibody (21920-1-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.



Immunofluorescent analysis of (4% PFA) fixed frozen OCT-embedded mouse brain tissue using NMDAR2B/GRIN2B antibody (21920-1-AP) at dilution of 1:200 and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).