

For Research Use Only

# gephyrin Polyclonal antibody

Catalog Number: 12681-1-AP

8 Publications



## Basic Information

### Catalog Number:

12681-1-AP

### Size:

150ul, Concentration: 800 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG3370

### GenBank Accession Number:

BC030016

### GeneID (NCBI):

10243

### UNIPROT ID:

Q9NQX3

### Full Name:

gephyrin

### Calculated MW:

769 aa, 83 kDa

### Observed MW:

93 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:500-1:1000

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

IHC: 1:50-1:500

IF/ICC: 1:20-1:200

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

### Cited Applications:

WB, IHC, IF

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat

**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: HEK-293 cells, Jurkat cells

IP: HEK-293 cells,

IHC: rat brain tissue,

IF/ICC: HEK-293 cells,

## Background Information

Gephyrin (GPHN) is an organizational protein that clusters and localizes the inhibitory glycine receptor (GlyR) and GABAA receptors to the microtubular matrix of the neuronal postsynaptic membrane. Mice deficient in gephyrin develop a hereditary molybdenum cofactor deficiency and a neurological phenotype that mimics startle disease (hyperekplexia). In non-neuronal tissues, the encoded protein is also required for molybdenum cofactor biosynthesis. Two isoforms produced by alternative splicing have been described. The observed MW of Gephyrin is 93 kDa, larger than the predicted of 83 kDa, which may be due to the modifications on various phosphorylation sites.

## Notable Publications

Author	Pubmed ID	Journal	Application
Jian Meng	35606143	J Neurosci	WB
Xiaoxiang Tan	36608926	Neurosci Lett	WB
Robert F Berman	40064497	eNeuro	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

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

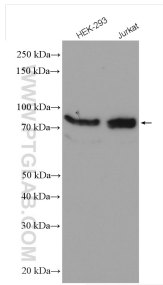
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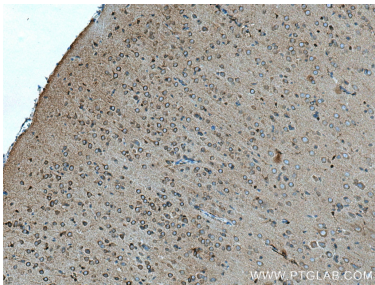
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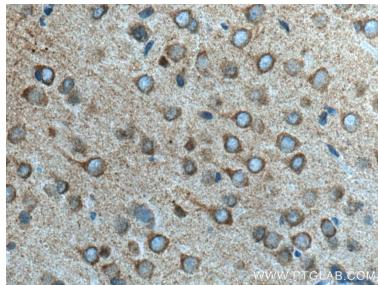
Selected Validation Data



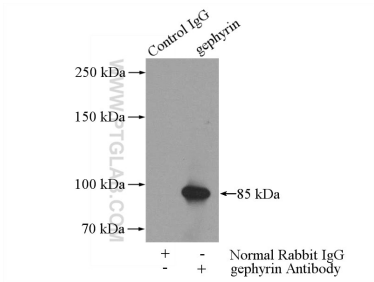
Various lysates were subjected to SDS PAGE followed by western blot with 12681-1-AP (gephyrin antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.



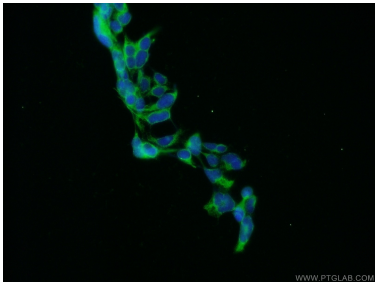
Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using 12681-1-AP (gephyrin antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using 12681-1-AP (gephyrin antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP result of anti-gephyrin (IP:12681-1-AP, 4ug; Detection:12681-1-AP 1:700) with HEK-293 cells lysate 3200ug.



Immunofluorescent analysis of HEK-293 cells using 12681-1-AP (gephyrin antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated Goat Anti-Rabbit IgG(H+L).