

For Research Use Only

# SYNGAP1 Polyclonal antibody

Catalog Number: 19739-1-AP

6 Publications



## Basic Information

### Catalog Number:

19739-1-AP

### Size:

150ul, Concentration: 550 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### GenBank Accession Number:

NM\_006772

### GeneID (NCBI):

8831

### UNIPROT ID:

Q96PVO

### Full Name:

synaptic Ras GTPase activating protein 1 homolog (rat)

### Calculated MW:

1343 aa, 148 kDa

### Observed MW:

148 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:1000-1:4000

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

IHC 1:50-1:500

IF/ICC 1:50-1:500

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

### Cited Applications:

WB, IHC

### Species Specificity:

human, mouse, rat, pig

### Cited Species:

mouse

### Positive Controls:

WB: mouse brain tissue, rat brain tissues, pig brain tissues

IP: mouse brain tissue,

IHC: mouse brain tissue,

IF/ICC: U-251 cells,

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

SYNGAP1, also named as KIAA1938, is the major constituent of the PSD essential for postsynaptic signaling. It's an inhibitory regulator of the Ras-cAMP pathway. SYNGAP1 is a member of the NMDAR signaling complex in excitatory synapses, it may play a role in NMDAR-dependent control of AMPAR potentiation, AMPAR membrane trafficking and synaptic plasticity. SYNGAP1 regulates AMPAR-mediated miniature excitatory postsynaptic currents. SYNGAP1 may be involved in certain forms of brain injury, leading to long-term learning and memory deficits. Defects in SYNGAP1 are the cause of mental retardation autosomal dominant type 5 (MRD5).

## Notable Publications

Author	Pubmed ID	Journal	Application
Shangru Lyu	36244636	Neuroscience	WB
Sydney Aten	33174316	Eur J Neurosci	WB, IHC
Cong-Cong Qi	33732137	Front Aging 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

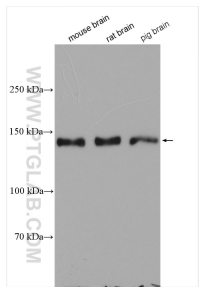
For technical support and original validation data for this product please contact:

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

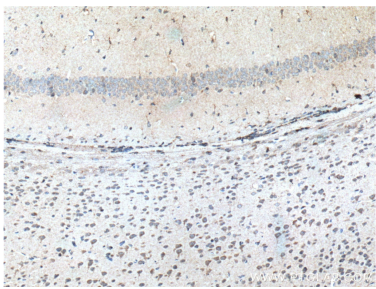
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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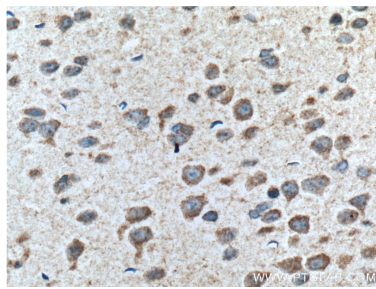
Selected Validation Data



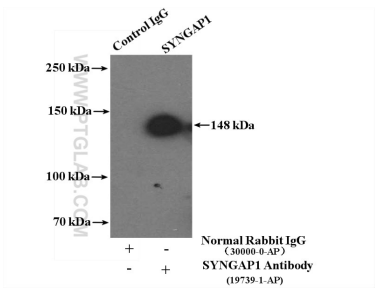
Various lysates were subjected to SDS PAGE followed by western blot with 19739-1-AP (SYNGAP1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



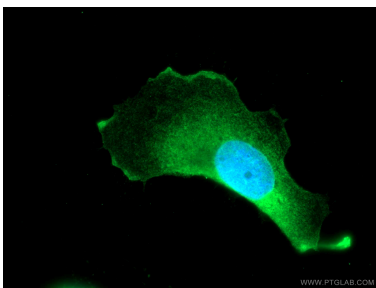
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 19739-1-AP (SYNGAP1 Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 19739-1-AP (SYNGAP1 Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP result of anti-SYNGAP1 (IP:19739-1-AP, 4ug; Detection:19739-1-AP 1:500) with mouse brain tissue lysate 4000ug.



Immunofluorescent analysis of (-20°C Ethanol) fixed U-251 cells using 19739-1-AP (SYNGAP1 antibody), at dilution of 1:100 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).