For Research Use Only

SYNGAP1 Polyclonal antibody

Catalog Number:19739-1-AP 6 Publications

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Basic Information

Catalog Number:
19739-1-AP

Size:
150ul , Concentration: 550 μg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
NM_006772

GeneID (NCBI):
8831

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 1:50-1:500

Applications

Tested Applications:
IF, IHC, IP, WB, ELISA

Cited Applications:
IHC, WB

Species Specificity:
human, mouse, rat, pig

Cited Species:
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 tissues, pig brain tissues

IP : mouse brain tissue,

IHC : mouse brain tissue,

IF : U-251 cells,

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
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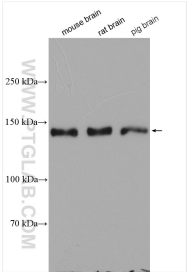
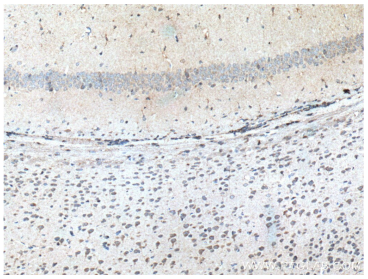
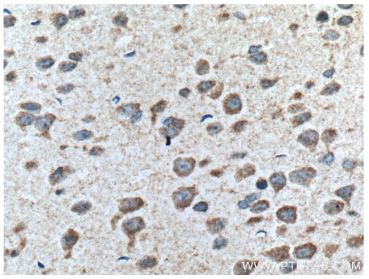
Selected Validation Data



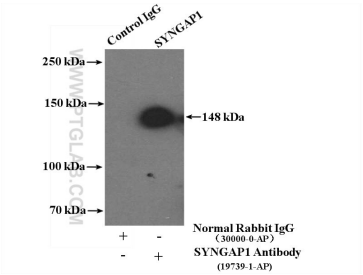
Various lysates were subjected to SDS PAGE followed by western blot with 19739-1-AP (SYNGAP1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



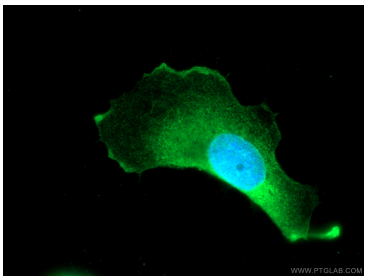
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 19739-1-AP (SYNGAP1 Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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).