

SynGAP Polyclonal Antibody

Product Details	
Size	100 µg
Species Reactivity	Human, Mouse, Rat
Published Species	Rat, Mouse
Host/Isotype	Rabbit / IgG
Class	Polyclonal
Type	Antibody
Conjugate	Unconjugated
Immunogen	GST fusion protein of a recombinant fragment, residues 947-1167, of rat SynGAP.
Form	Liquid
Concentration	1 mg/mL
Purification	Antigen affinity chromatography
Storage buffer	PBS with 1mg/mL BSA
Contains	0.05% sodium azide
Storage conditions	-20° C, Avoid Freeze/Thaw Cycles
RRID	AB_2287112

Applications	Tested Dilution	Publications
Western Blot (WB)	1 µg/mL	16 Publications
Immunohistochemistry (IHC)	-	2 Publications
Immunohistochemistry (Paraffin) (IHC (P))	2 µg/mL	-
Immunocytochemistry (ICC/IF)	2 µg/mL	8 Publications
Immunoprecipitation (IP)	-	1 Publication
ChIP assay (ChIP)	-	1 Publication

Product Specific Information

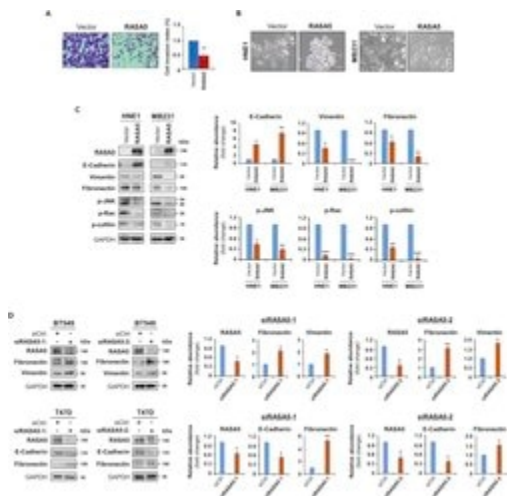
PA1-046 detects synaptic Ras-GTPase activating protein (SynGAP) from mouse and rat tissues.

The PA1-046 has been successfully used in Western blot and immunocytochemistry procedures. By Western blot, this antibody detects an ~135 kDa protein representing SynGAP from mouse brain tissue homogenate. Immunocytochemical staining of SynGAP in rat hippocampal neurons with PA1-046 yields a pattern consistent with vesicular staining.

PA1-046 immunogen is residues 947-1167 of rat SynGAP.

SynGAP Antibody (PA1-046)

RASA5 Restoration Suppresses Tumor Cell Invasion and Reverses Cell EMT Phenotype (A) Matrigel invasion chamber assay of RASA5-expressing MB231 cells. Invaded cells at the lower surface of transwell filter were stained and counted. *, $p < 0.05$. Scale bar 200 M. Each bar represented mean \pm SEM of three independent experiments with control cells as the baseline using Student's t test. (B) Morphology changes of HNE1 and MB231 cells stably expressing RASA5. Original magnification, 400x. Scale bar 200 M. (C) Ectopic RASA5 expression upregulated E-cadherin, downregulated vimentin, fibronectin and phosphorylation levels of Rac, cofilin, and JNK1/2 by Western blot in HNE1 and MB231 cells. GAPDH as a loading control. Graphs represent quantification of Western blots with fold changes compared with controls (right). Data were presented as mean \pm SEM of three independent experiments via Student's t test and representative data were shown. *, $p < 0.05$; **, $p < 0.01$; ***, $p < 0.001$. (D) Expression of EMT markers (E-cadherin, vimentin, and fibronectin) was examined by Western blot in BT549 and T47D cells with RASA5-knockdown through two different siRNAs (siRASA5-1, siRASA5-2). Right panel graphs represent quantification of Western blots with fold changes compared with controls (right). *, $p < 0.05$; **, $p < 0.01$. Data were presented as mean \pm SEM of three independent experiments via Student's t test and representative data were shown. Knockdown validation info.



Product Images For SynGAP Polyclonal Antibody

SynGAP Antibody (PA1-046) in ICC/IF

Immunofluorescence analysis of SynGAP was performed using 70% confluent log phase PC-12 cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with SynGAP Rabbit Polyclonal Antibody (Product # PA1-046) at 2 µg/mL in 0.1% BSA and incubated for 3 hours at room temperature and then labeled with Goat anti-Rabbit IgG (H+L) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A27034) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor® 555 Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing membranous localization. Panel e shows the no primary antibody control. The images were captured at 60X magnification.

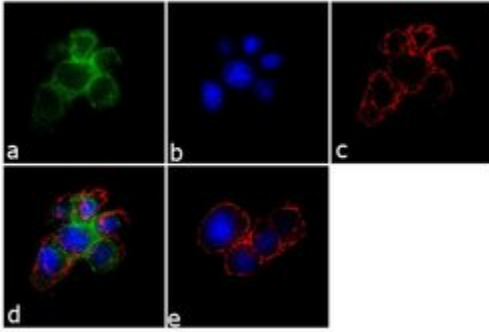
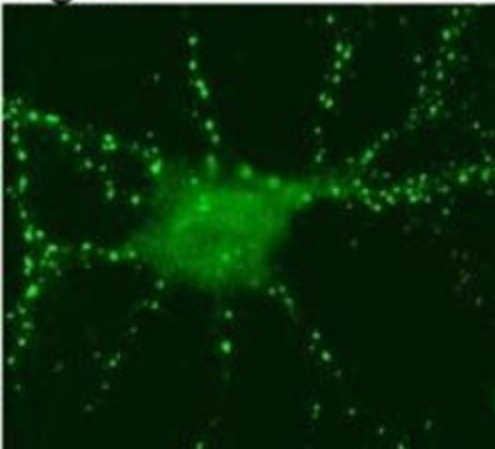


Fig. 2

SynGAP Antibody (PA1-046) in ICC/IF

Figures 2 illustrate immunolocalization of SynGAP in rat hippocampal neurons using Product # PA1-046.



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Western Blot (16)

Journal of neurochemistry

SynGAP splice variants display heterogeneous spatio-temporal expression and subcellular distribution in the developing mammalian brain.

"PA1-046 was used in Western Blotting to hypothesize that different SynGAP isoforms will mediate different sets of functions and that deciphering their spatio-temporal expression and subcellular localization will accelerate understanding their multiple functions."

Authors: Gou G,Roca-Fernandez A,Kilinc M,Serrano E,Reig-Viader R,Araki Y,Huganir RL,de Quintana-Schmidt C,Rumbaugh G,Bayés À

Species
Mouse

Dilution
1:2500

Year
2020

eLife

A sex difference in the response of the rodent postsynaptic density to synGAP haploinsufficiency.

"Published figure using SynGAP polyclonal antibody (Product # PA1-046) in Western Blot"

Authors: Mastro TL,Preza A,Basu S,Chattarji S,Till SM,Kind PC,Kennedy MB

Species
Not Applicable

Dilution
Not Cited

Year
2020

[View more WB references on thermofisher.com](#)

Immunohistochemistry (2)

Frontiers in synaptic neuroscience

Cyfp1 Regulates SynGAP1 at Hippocampal Synapses.

"Published figure using SynGAP polyclonal antibody (Product # PA1-046) in Immunohistochemistry"

Authors: Sahasrabudhe A,Begum F,Guevara CA,Morrison C,Hsiao K,Kezunovic N,Bozdagi-Gunal O,Benson DL

Species
Not Applicable

Dilution
Not Cited

Year
2021

The Journal of comparative neurology

Cadherin-8 expression, synaptic localization, and molecular control of neuronal form in prefrontal corticostriatal circuits.

"Published figure using SynGAP polyclonal antibody (Product # PA1-046) in Immunofluorescence"

Authors: Friedman LG,Riemsлагh FW,Sullivan JM,Mesias R,Williams FM,Huntley GW,Benson DL

Species
Rat

Dilution
Not Cited

Year
2015

More applications with references on thermofisher.com

ICC/IF (8)

IP (1)

ChIP (1)

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