

SRGAP2 Antibody (internal region)
Peptide-affinity purified goat antibody
Catalog # AF3077a

Specification

SRGAP2 Antibody (internal region) - Product Information

Application	WB, IF
Primary Accession	O75044
Other Accession	NP_056141.2 , 23380 , 14270 (mouse) , 360840 (rat)
Reactivity	Human
Predicted	Mouse, Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	120871

SRGAP2 Antibody (internal region) - Additional Information

Gene ID 23380

Other Names

SLIT-ROBO Rho GTPase-activating protein 2, srGAP2, Formin-binding protein 2, Rho GTPase-activating protein 34, SRGAP2, ARHGAP34, FNBP2, KIAA0456, SRGAP2A

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SRGAP2 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

SRGAP2 Antibody (internal region) - Protein Information

Name SRGAP2 {ECO:0000303|PubMed:11672528, ECO:0000312|HGNC:HGNC:19751}

Function

Postsynaptic RAC1 GTPase activating protein (GAP) that plays a key role in neuronal morphogenesis and migration mainly during development of the cerebral cortex (PubMed:20810653, PubMed:27373832, PubMed:28333212). Regulates

excitatory and inhibitory synapse maturation and density in cortical pyramidal neurons (PubMed:22559944, PubMed:27373832). SRGAP2/SRGAP2A limits excitatory and inhibitory synapse density through its RAC1-specific GTPase activating activity, while it promotes maturation of both excitatory and inhibitory synapses through its ability to bind to the postsynaptic scaffolding protein HOMER1 at excitatory synapses, and the postsynaptic protein GPHN at inhibitory synapses (By similarity). Mechanistically, acts by binding and deforming membranes, thereby regulating actin dynamics to regulate cell migration and differentiation (PubMed:27373832). Promotes cell repulsion and contact inhibition of locomotion: localizes to protrusions with curved edges and controls the duration of RAC1 activity in contact protrusions (By similarity). In non-neuronal cells, may also play a role in cell migration by regulating the formation of lamellipodia and filopodia (PubMed:20810653, PubMed:21148482).

Cellular Location

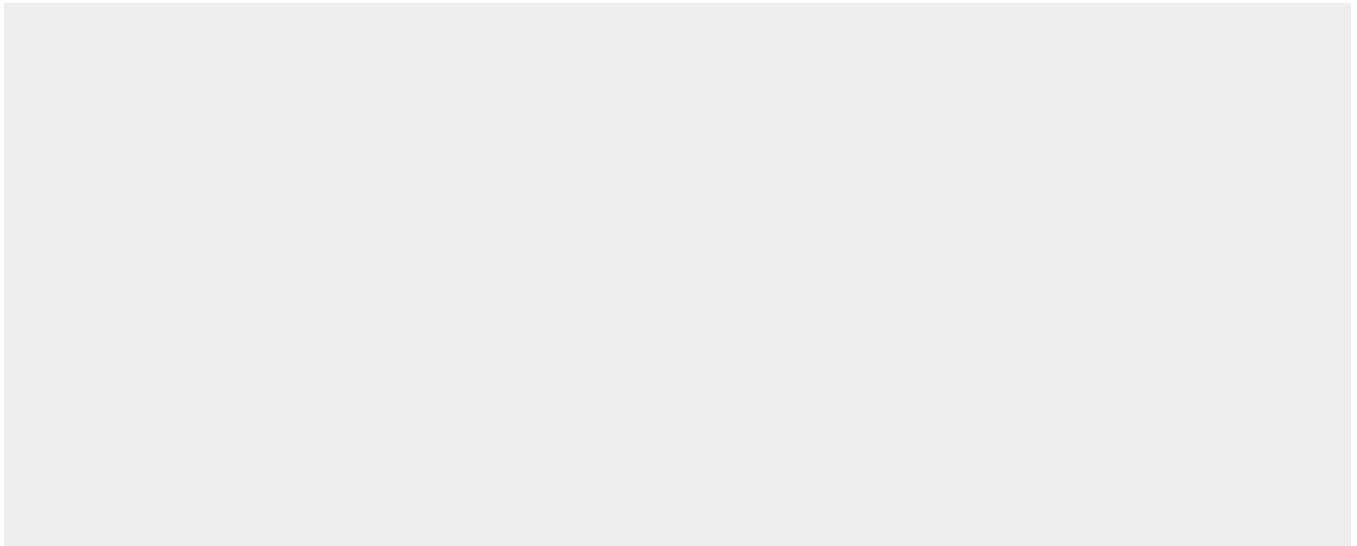
Cell membrane. Cell projection, dendritic spine. Postsynaptic density {ECO:0000250|UniProtKB:Q91Z67}. Postsynaptic cell membrane {ECO:0000250|UniProtKB:Q91Z67}. Cell projection, lamellipodium. Cytoplasmic vesicle, phagosome {ECO:0000250|UniProtKB:Q91Z67}. Nucleus {ECO:0000250|UniProtKB:D4A208} Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q91Z67}. Note=Recruited to actin-rich phagosomes during phagocytosis (By similarity). Translocates from nucleus to cytoplasm during development (By similarity) {ECO:0000250|UniProtKB:D4A208, ECO:0000250|UniProtKB:Q91Z67}

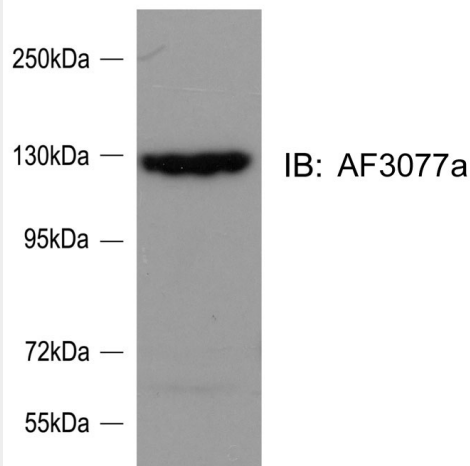
SRGAP2 Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

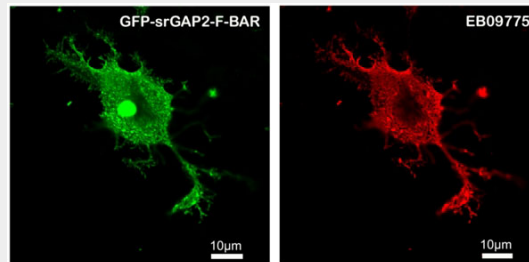
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SRGAP2 Antibody (internal region) - Images





AF3077a (0.1 µg/ml) staining of Rat Cortical Neuron lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence. Data kindly provided by Ms. Ya-Jing Mi and Dr. Wei-Lin Jin, Institute of Neurosciences, Shanghai Jiao Tong University.



HEK293 overexpressing Human srGAP2 and probed with AF3077a at 2.5 µg/ml in the right panel. Data kindly provided by Ms. Ya-Jing Mi and Dr. Wei-Lin Jin, Institute of Neurosciences, Shanghai Jiao Tong University.

SRGAP2 Antibody (internal region) - Background

This antibody is expected to recognize isoform a (NP_056141.2).

SRGAP2 Antibody (internal region) - References

Proteomic, functional, and domain-based analysis of in vivo 14-3-3 binding proteins involved in cytoskeletal regulation and cellular organization. Jin J, Smith FD, Stark C, Wells CD, Fawcett JP, Kulkarni S, Metalnikov P, O'Donnell P, Taylor P, Taylor L, Zougman A, Woodgett JR, Langeberg LK, Scott JD, Pawson T, *Current biology* : CB 2004 Aug 14 (16): 1436-50. PMID: 15324660