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SRGAP2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21636b

Specification

SRGAP2 Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	O75044
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**120871**

SRGAP2 Antibody (C-term) - 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

Target/Specificity
This SRGAP2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 1040-1071amino acids from the C-terminal region of human SRGAP2.

Dilution
WB~~1:2000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Precautions
SRGAP2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SRGAP2 Antibody (C-term) - 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).

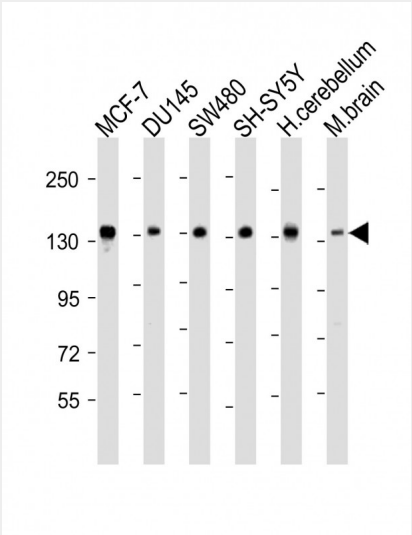
Cellular Location
Cell membrane. Cell projection, dendritic spine. Postsynaptic density {ECO:0000250|UniProtKB:Q91Z67}. Postsynaptic cell membrane {ECO:0000250|UniProtKB:Q91Z67}. Cell projection, lamellipodium. Cytoplasmic vesicle, phagosome {ECO:0000250|UniProtKB:Q91Z67}. Nucleus {ECO:0000250|UniProtKB:D4A208} 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 (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SRGAP2 Antibody (C-term) - Images



All lanes : Anti-SRGAP2 Antibody (C-term) at 1:2000 dilution Lane 1: MCF-7 whole cell lysate Lane 2: DU145 whole cell lysate Lane 3: SW480 whole cell lysate Lane 4: SH-SY5Y whole cell lysate Lane 5: human cerebellum lysate Lane 6: mouse brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 121 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

SRGAP2 Antibody (C-term) - Background

RAC1 GTPase activating protein (GAP) that binds and deforms membranes, and regulates actin dynamics to regulate cell migration and differentiation. Plays an important role in different aspects of neuronal morphogenesis and migration mainly during development of the cerebral cortex. This includes the biogenesis of neurites, where it is required for both axons and dendrites outgrowth, and the maturation of the dendritic spines. Also stimulates the branching of the leading process and negatively regulates neuron radial migration in the cerebral cortex. Its interaction and inhibition by SRGAP2C reduces the rate of spine maturation, alters dendritic spine morphology and density and indirectly increases neuronal migration. It may have implications for cognition, learning and memory. In non-neuronal cells, it may also play a role in cell migration by regulating the formation of lamellipodia and filopodia.

SRGAP2 Antibody (C-term) - References

Seki N.,et al.DNA Res. 4:345-349(1997).
Wong K.,et al.Cell 107:209-221(2001).
Olsen J.V.,et al.Cell 127:635-648(2006).
Dephoure N.,et al.Proc. Natl. Acad. Sci. U.S.A. 105:10762-10767(2008).
Gauci S.,et al.Anal. Chem. 81:4493-4501(2009).