

SRGAP2 Blocking Peptide (C-term)
Synthetic peptide
Catalog # BP21635b**Specification**

SRGAP2 Blocking Peptide (C-term) - Product InformationPrimary Accession [O75044](#)**SRGAP2 Blocking Peptide (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

The synthetic peptide sequence is selected from aa 997-1010 of HUMAN SRGAP2

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SRGAP2 Blocking Peptide (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)

target="_blank">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 Blocking Peptide (C-term) - Protocols

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

- [Blocking Peptides](#)

SRGAP2 Blocking Peptide (C-term) - Images

SRGAP2 Blocking Peptide (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 Blocking Peptide (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).