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RGS14 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16695c

Specification

RGS14 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	O43566
Other Accession	NP_006471.2
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**61447**
Antigen Region	**223-251**

RGS14 Antibody (Center) - Additional Information

Gene ID 10636

Other Names
Regulator of G-protein signaling 14, RGS14, RGS14

Target/Specificity
This RGS14 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 223-251 amino acids from the Central region of human RGS14.

Dilution
WB~~1:1000
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
RGS14 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

RGS14 Antibody (Center) - Protein Information

Name RGS14

Function Regulates G protein-coupled receptor signaling cascades. Inhibits signal transduction by

increasing the GTPase activity of G protein alpha subunits, thereby driving them into their inactive GDP- bound form. Besides, modulates signal transduction via G protein alpha subunits by functioning as a GDP-dissociation inhibitor (GDI). Has GDI activity on G(i) alpha subunits GNAI1 and GNAI3, but not on GNAI2 and G(o)-alpha subunit GNAO1. Has GAP activity on GNAI0, GNAI2 and GNAI3. May act as a scaffold integrating G protein and Ras/Raf MAPkinase signaling pathways. Inhibits platelet-derived growth factor (PDGF)- stimulated ERK1/ERK2 phosphorylation; a process depending on its interaction with HRAS and that is reversed by G(i) alpha subunit GNAI1. Acts as a positive modulator of microtubule polymerisation and spindle organization through a G(i)-alpha-dependent mechanism. Plays a role in cell division. Required for the nerve growth factor (NGF)-mediated neurite outgrowth. Involved in stress resistance. May be involved in visual memory processing capacity and hippocampal-based learning and memory.

Cellular Location
Nucleus. Nucleus, PML body. Cytoplasm. Membrane. Cell membrane. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle. Cytoplasm, cytoskeleton, spindle pole. Cell projection, dendrite. Cell projection, dendritic spine Postsynaptic density. Note=Associates with the perinuclear sheaths of microtubules (MTs) surrounding the pronuclei, prior to segregating to the anastral mitotic apparatus and subsequently the barrel-shaped cytoplasmic bridge between the nascent nuclei of the emerging 2-cell embryo. Localizes to a perinuclear compartment near the microtubule-organizing center (MTOC). Expressed in the nucleus during interphase and segregates to the centrosomes and astral MTs during mitosis. Relocalizes to the nucleus in PML nuclear bodies in response to heat stress. Colocalizes with RIC8A in CA2 hippocampal neurons Localizes to spindle poles during metaphase. Shuttles between the nucleus and cytoplasm in a CRM1-dependent manner. Recruited from the cytosol to the plasma membrane by the inactive GDP-bound forms of G(i) alpha subunits GNAI1 and GNAI3. Recruited from the cytosol to membranes by the active GTP-bound form of HRAS. Colocalizes with G(i) alpha subunit GNAI1 and RIC8A at the plasma membrane. Colocalizes with BRAF and RAF1 in both the cytoplasm and membranes (By similarity)

RGS14 Antibody (Center) - 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

RGS14 Antibody (Center) - Images

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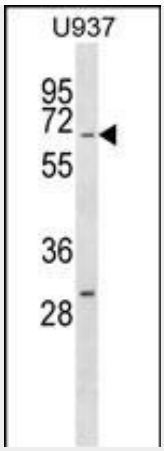

RGS14 Antibody (Center) (Cat. #AP16695c) western blot analysis in U937 cell line lysates (35ug/lane).This demonstrates the RGS14 antibody detected the RGS14 protein (arrow).

RGS14 Antibody (Center) - Background

This gene encodes a member of the regulator of G-protein signaling family. This protein contains one RGS domain, two Raf-like Ras-binding domains (RBDs), and one GoLoco domain. The protein attenuates the signaling activity of G-proteins by binding, through its GoLoco domain, to specific types of activated, GTP-bound G alpha subunits. Acting as a GTPase activating protein (GAP), the protein increases the rate of conversion of the GTP to GDP. This hydrolysis allows the G alpha subunits to bind G beta/gamma subunit heterodimers, forming inactive G-protein heterotrimers, thereby terminating the signal. Alternate transcriptional splice variants of this gene have been observed but have not been thoroughly characterized.

RGS14 Antibody (Center) - References

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