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Rgs14 Antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI10666

Product Information

Application	WB
Primary Accession	P97492
Other Accession	NM_016758, NP_058038
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Dog, Bovine
Predicted	Human, Mouse, Rat, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	59847

Additional Information

Gene ID	51791
Other Names	Regulator of G-protein signaling 14, RGS14, RAP1/RAP2-interacting protein, RPIP1, Rgs14
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-Rgs14 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	Rgs14 Antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

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 (PubMed:29414686). 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 polymerization and spindle organization through a G(i)-alpha-dependent mechanism. Plays a role in cell division; required for completion of the first mitotic division of the embryo. Involved in visual memory processing capacity; when overexpressed in the V2 secondary visual cortex area. Involved in hippocampal-based learning and memory; acts as a suppressor of synaptic plasticity in CA2 neurons. Required for the nerve growth factor (NGF)- mediated neurite outgrowth. Involved in stress resistance.

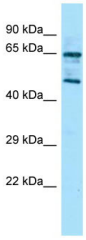
Cellular Location

Nucleus. Nucleus, PML body. Cytoplasm. Membrane. Cell membrane. Cytoplasm, cytoskeleton, spindle Cytoplasm, cytoskeleton, spindle pole. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cell projection, dendrite. Cell projection, dendritic spine. Postsynaptic density. Note=Localizes with 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) 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. Shuttles between the nucleus and cytoplasm in a CRM1-dependent manner. Relocalizes to the nucleus in PML nuclear bodies in respons to heat stress. Colocalizes with RIC8A in CA2 hippocampal neurons.

Tissue Location

Expressed in pyramidal neurons of the CA1, CA2 and fasciola cinerea (FC) subregions of the hippocampus and in the olfactory cortex (at protein level). Expressed in brain, spleen, heart, liver, lung, kidney, skin and thymus (at protein level). Expressed in granular layer of the cerebellum, forbrain, striatum, layer V of the cortex, olfactory cortex, tubercules, subthalamic and hippocampus, particularly in the CA2 region, to a lesser extent in the CA1 region and the external layer of the dentate gyrus. Expressed in neurons

Images



Host: Rabbit
Target Name: Rgs14
Sample Tissue: Mouse Stomach lysates
Antibody Dilution: 1.0µg/ml

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.