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Rabbit Anti-ARHGAP32/Cy5 Conjugated antibody

SL9296R-Cy5

Product Name	Anti-ARHGAP32/Cy5
Chinese Name	Cy5 标记的 Rho GTP 酶激活蛋白 32 抗体
Alias	Brain-specific Rho GTPase-activating protein; GAB-associated Cdc42/Rac GTPase-activating protein; GC-GAP; GRIT; GTPase regulator interacting with TrkA; p200RhoGAP; p250GAP; PX-RICS; rac GTPase activating protein; Rho GTPase activating protein 32; Rho GTPase-activating protein 32; Rho-type GTPase-activating protein 32; Rho/Cdc42/Rac GTPase-activating protein RICS; RhoGAP involved in the beta-catenin-N-cadherin and NMDA receptor signaling; RICS.
Research Area	Cell biology Neurobiology Signal transduction Cyclin G protein-coupled receptor G protein signal
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse,Rat(predicted:Human,Dog,Pig,Cow,Horse)
Applications	Flow-Cyt=2ug/Test,IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	230kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human ARHGAP32
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Product Detail

background:
ARHGAP32 is a neuron-associated GTPase-activating protein that may regulate dendritic spine morphology and strength by modulating Rho GTPase.

Function:
GTPase-activating protein (GAP) promoting GTP hydrolysis on RHOA, CDC42 and RAC1 small GTPases. May be involved in the differentiation of neuronal cells during the formation of neurite extensions. Involved in NMDA receptor activity-dependent actin reorganization in dendritic spines. May mediate cross-talks between Ras- and Rho-regulated signaling pathways in cell growth regulation. Isoform 2 has higher GAP activity (By similarity).

Subunit:
nteracts with NTRK1 (via cytoplasmic domain); the interaction is independent of the phosphorylation state of NTRK1. Interacts with SHC3 (via SH2 domain). Interacts with RASA1 (via SH3 domain); the interaction is necessary for the Ras activation and cell transforming activities of ARHGAP32 (By similarity). Interacts with GAB1 and GAB2. Interacts with CRK and CRKL. Found in a complex with CRKL and BCAR1; upon EGF stimulation BCAR1 may be replaced by EGFR. Interacts with NCK1 (via SH3 domain); NCK1 recruits phosphorylated BCAR1 to the complex. Isoform 2 interacts with FYN; the interaction appears to be dependent on tyrosine phosphorylation of ARHGAP32. Interacts with EGFR; the interaction requires EGF stimulation and is increased by SHC3. Interacts with CDC42; the interaction requires constitutively active CDC42. Interacts with CTNNB1, DLG4, CDH2 and GRIN2B (By similarity).

Subcellular Location:
Cell junction, synapse, postsynaptic cell membrane, postsynaptic density. Cell projection, dendritic spine By similarity. Cytoplasm, cell cortex. Endosome membrane By similarity. Golgi apparatus membrane By similarity. Endoplasmic reticulum membrane By similarity. Membrane.

Tissue Specificity:
Isoform 1 and isoform 2 are highly expressed in brain and testis. Isoform 1 is also expressed in other tissues such as lung, liver and spleen.

Post-translational modifications:
Isoform 2 is phosphorylated on multiple tyrosine residues by FYN. Phosphorylated tyrosine residues undergo dephosphorylation after stimulation of NMDA receptors (By similarity). Phosphorylated in vitro by CaMK2 in the presence of calmodulin and calcium; which inhibits GAP activity (By similarity).

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Similarity:
Belongs to the PX domain-containing GAP family.
Contains 1 PX (phox homology) domain.
Contains 1 Rho-GAP domain.
Contains 1 SH3 domain.

Database links:

Entrez Gene: 9743 Human

Omim: 608541 Human

SwissProt: A7KAX9 Human

Unigene: 440379 Human

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.