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[Marker Primary Antibody]

Rabbit Anti-ARHGAP32/Cy3 Conjugated antibody

Catalog Number: SL9296R-Cy3

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-ARHGAP32/Cy3
Immunogen:	KLH conjugated synthetic peptide derived from human ARHGAP32
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
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.
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.
Reactivity:	Mouse,Rat(predicted:Human,Dog,Pig,Cow,Horse)
Background:	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

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	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). **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.