10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RICH2 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP10656b

Specification

RICH2 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	Q17R89
Other Accession	NP_055674.4

RICH2 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 9912

Other Names
Rho GTPase-activating protein 44, NPC-A-10, Rho-type GTPase-activating protein RICH2, RhoGAP interacting with CIP4 homologs protein 2, RICH-2, ARHGAP44, KIAA0672, RICH2

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.

RICH2 Antibody (C-term) Blocking Peptide - Protein Information

Name ARHGAP44 (HGNC:29096)

Synonyms KIAA0672, RICH2

Function
GTPase-activating protein (GAP) that stimulates the GTPase activity of Rho-type GTPases. Thereby, controls Rho-type GTPases cycling between their active GTP-bound and inactive GDP-bound states. Acts as a GAP at least for CDC42 and RAC1 (PubMed:11431473). In neurons, is involved in dendritic spine formation and synaptic plasticity in a specific RAC1-GAP activity (By similarity). Limits the initiation of exploratory dendritic filopodia. Recruited to actin- patches that seed filopodia, binds specifically to plasma membrane sections that are deformed inward by acto-myosin mediated contractile forces. Acts through GAP activity on RAC1 to reduce actin polymerization necessary for filopodia formation (By similarity). In association with SHANK3, promotes GRIA1 exocytosis from recycling endosomes and spine morphological changes associated to long-term potentiation (By similarity).

Cellular Location
Cell projection, dendritic spine {ECO:0000250|UniProtKB:Q5SSM3}. Recycling endosome

{ECO:0000250|UniProtKB:Q5SSM3}. Presynapse {ECO:0000250|UniProtKB:Q5SSM3}. Cell projection, dendrite {ECO:0000250|UniProtKB:F1LQX4}. Note=In CA1 hippocampal synapses, detected at both presynaptic and postsynaptic sites (By similarity) Located in convoluted dendritic plasma membrane sections enriched in polymerized actin and myosin (patches) along dendrites where often emerge filopodia (By similarity). {ECO:0000250|UniProtKB:F1LQX4, ECO:0000250|UniProtKB:Q5SSM3}

Tissue Location
Highly expressed in brain. Expressed at weak level in other tissues.

RICH2 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

RICH2 Antibody (C-term) Blocking Peptide - Images

RICH2 Antibody (C-term) Blocking Peptide - Background

GTPase activator for the Rho-type GTPases by converting them to an inactive GDP-bound state. Acts as a GTPase activitor in vitro for CDC42 and RAC1.

RICH2 Antibody (C-term) Blocking Peptide - References

Rollason, R., et al. J. Cell Biol. 184(5):721-736(2009)Richnau, N., et al. J. Biol. Chem. 276(37):35060-35070(2001)