

# CDC42 Rabbit mAb

Catalog # AP75239

## Specification

## CDC42 Rabbit mAb - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW WB <u>P60953</u> Human, Rat Rabbit Monoclonal Antibody 21259

## CDC42 Rabbit mAb - Additional Information

Gene ID 998

Other Names CDC42

**Dilution** WB~~1/500-1/1000

Format Liquid

## **CDC42** Rabbit mAb - Protein Information

Name CDC42 (HGNC:1736)

#### **Function**

Plasma membrane-associated small GTPase which cycles between an active GTP-bound and an inactive GDP-bound state. In active state binds to a variety of effector proteins to regulate cellular responses. Involved in epithelial cell polarization processes. Regulates the bipolar attachment of spindle microtubules to kinetochores before chromosome congression in metaphase (PubMed: <a href="http://www.uniprot.org/citations/15642749" target=" blank">15642749</a>). Regulates cell migration (PubMed:<a href="http://www.uniprot.org/citations/17038317" target=" blank">17038317</a>, PubMed:<a href="http://www.uniprot.org/citations/22843693" target=" blank">22843693</a>). In neurons, plays a role in the extension and maintenance of the formation of filopodia, thin and actin-rich surface projections (PubMed:<a href="http://www.uniprot.org/citations/14978216" target=" blank">14978216</a>). Required for DOCK10-mediated spine formation in Purkinje cells and hippocampal neurons. In podocytes, facilitates filopodia and podosomes formation upon DOCK11-activation (PubMed:<a href="http://www.uniprot.org/citations/33523862" target=" blank">33523862</a>). Upon activation by CaMKII, modulates dendritic spine structural plasticity by relaying CaMKII transient activation to synapse-specific, long-term signaling (By similarity). Also plays a role in phagocytosis through organization of the F-actin cytoskeleton associated with forming phagocytic cups (PubMed:<a href="http://www.uniprot.org/citations/26465210" target="\_blank">26465210</a>). Upon activation by PLEKHG4B, involved in actin cytoskeletal remodeling during epithelial cell-cell



junction formation (PubMed:<a href="http://www.uniprot.org/citations/33310911" target="\_blank">33310911</a>).

#### **Cellular Location**

Cell membrane; Lipid-anchor; Cytoplasmic side. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle. Midbody Cell projection, dendrite {ECO:0000250|UniProtKB:P60766} Note=Localizes to spindle during prometaphase cells. Moves to the central spindle as cells progressed through anaphase to telophase (PubMed:15642749). Localizes at the end of cytokinesis in the intercellular bridge formed between two daughter cells (PubMed:15642749). Its localization is regulated by the activities of guanine nucleotide exchange factor ECT2 and GTPase activating protein RACGAP1 (PubMed:15642749). Colocalizes with NEK6 in the centrosome (PubMed:20873783). In its active GTP-bound form localizes to the leading edge membrane of migrating dendritic cells (By similarity) {ECO:0000250|UniProtKB:P60766, ECO:0000269|PubMed:15642749, ECO:0000269|PubMed:20873783}

## CDC42 Rabbit mAb - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### CDC42 Rabbit mAb - Images

