

**CDC42 Antibody**  
**Rabbit mAb**  
**Catalog # AP90950**

## Specification

### CDC42 Antibody - Product Information

Application	WB, IHC, FC, IP
Primary Accession	<a href="#">P60953</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
CDC42; CDC42Hs; G25K; TKS;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	21259 Da

### CDC42 Antibody - Additional Information

Dilution	WB~~1:1000 IHC~~1:100~500 FC~~1:10~50 IP~~N/A
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human CDC42
Description	Rac and Cdc42 are members of the Rho-GTPase family. In mammals, Rac exists as three isoforms, Rac1, Rac2 and Rac3, which are highly similar in sequence. Rac1 and Cdc42, the most widely studied of this group, are ubiquitously expressed. Rac and Cdc42 play key signaling roles in cytoskeletal reorganization, membrane trafficking, transcriptional regulation, cell growth and development.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

### CDC42 Antibody - 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}

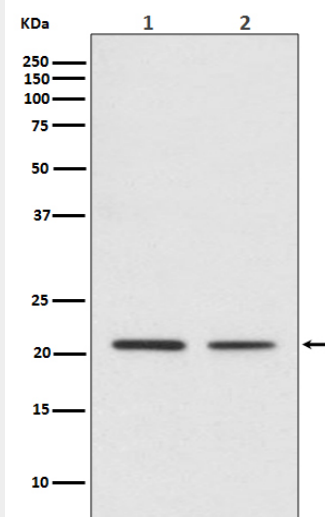
### CDC42 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### CDC42 Antibody - Images





Western blot analysis of CDC42 expression in (1) Jurkat cell lysate; (2) Mouse spleen lysate.