

# Anti-CDC42 Antibody

Rabbit Anti Human Polyclonal Antibody  
Catalog # ALS18161

## Product Information

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<b>Application</b>	WB, IHC-P
<b>Primary Accession</b>	<a href="#">P60953</a>
<b>Predicted</b>	Human, Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Calculated MW</b>	21259

## Additional Information

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<b>Gene ID</b>	998
<b>Alias Symbol</b> <b>Other Names</b>	CDC42 CDC42, G25K, G25K GTP-binding protein, Growth-regulating protein, CDC42Hs, GTP-binding protein, 25kD
<b>Target/Specificity</b>	Human CDC42
<b>Reconstitution &amp; Storage</b>	Affinity purified
<b>Precautions</b>	Anti-CDC42 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	CDC42 ( <a href="#">HGNC:1736</a> )
<b>Function</b>	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="#">15642749</a> ). Regulates cell migration (PubMed: <a href="#">17038317</a> , PubMed: <a href="#">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="#">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="#">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:[26465210](#)). Upon activation by PLEKHG4B, involved in actin cytoskeletal remodeling during epithelial cell-cell junction formation (PubMed:[33310911](#)).

### **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}

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.