

Rabbit CDC42 Polyclonal Antibody | anti-CDC42 antibody

Anti-CDC42 Antibody Picoband

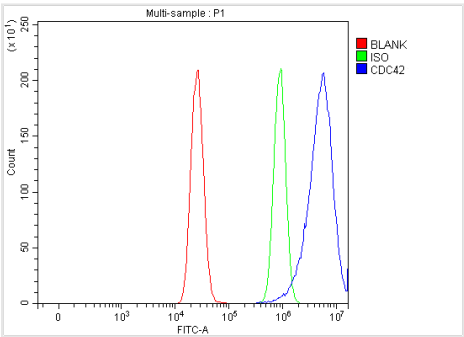
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA126967	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot

PRODUCT SYNONYMS

CDC42; Polyclonal Antibody; Anti-CDC42 Antibody Picoband; GTPase Hras; cell division cycle 42 (GTP binding protein; 25kDa); Cell division control protein 42 homolog; G25K GTP-binding protein; anti-CDC42 antibody

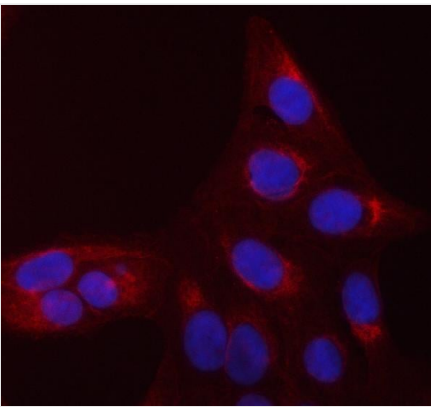
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Widely expressed.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-CDC42 antibody	ELISA, FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Immunogen	E coli-derived human CDC42 recombinant protein (Position: N26-L191).
Subcellular Localization	Centrosome. Spindle. Cell membrane. Lipid-anchor. Cytoplasmic side. Midbody
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein 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. Plays a role in the extension and maintenance of the formation of thin, actin-rich surface projections called filopodia. Mediates CDC42-dependent cell migration. Required for DOCK10-mediated spine formation in Purkinje cells and hippocampal neurons. Facilitates filopodia formation upon DOCK11-activation. Also plays a role in phagocytosis through organization of the F-actin cytoskeleton associated with forming phagocytic cups.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.



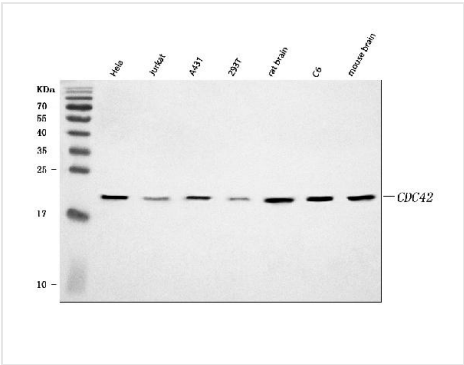
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of MCF-7 cells using anti-CDC42 antibody (AAA126967). Overlay histogram showing MCF-7 cells stained with AAA126967 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CDC42 Antibody (AAA126967, 1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 2. IF analysis of CDC42 using anti-CDC42 antibody (AAA126967). CDC42 was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-CDC42 Antibody (AAA126967) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



WB (Western Blot)

Figure 1. Western blot analysis of CDC42 using anti-CDC42 antibody (AAA126967). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human Jurkat whole cell lysates, Lane 3: human A431 whole cell lysates, Lane 4: human 293T whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat C6 whole cell lysates, Lane 7: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CDC42 antigen affinity purified polyclonal antibody (#AAA126967) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for CDC42 at approximately 21 kDa. The expected band size for CDC42 is at 21 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-CDC42 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-CDC42 antibody	Primary Antibodies; Associated Proteins; Cancer; Cancer Susceptibility; Cell Biology; Cell Cycle; Cell Differentiation; Epigenetics and Nuclear Signaling; G Protein Signaling; Intracellular; Nucleotide Messenger; Proto-Oncogenes; Ras Family; Second Messen
References	1. Shinjo K, Koland JG, Hart MJ, Narasimhan V, Johnson DI, Evans T, Cerione RA (December 1990).2. Munemitsu S, Innis MA, Clark R, McCormick F, Ullrich A, Polakis P (November 1990).

NCBI AND UNIPROT INFORMATION

NCBI GI #	4757952
NCBI GeneID	998
NCBI Accession #	NP_001782.1
NCBI GenBank Nucleotide #	NM_001791.3
UniProt Accession #	P60953; P21181; P25763; Q7L8R5; Q9UDI2
Molecular Weight	21,259 Da
NCBI Official Full Name	cell division control protein 42 homolog isoform 1
NCBI Official Synonym Full Names	cell division cycle 42
NCBI Official Symbol	CDC42
NCBI Official Synonym Symbols	G25K; CDC42Hs
NCBI Protein Information	cell division control protein 42 homolog; G25K GTP-binding protein; GTP-binding protein, 25kD; growth-regulating protein; GTP binding protein, 25kDa; small GTP binding protein CDC42; dJ224A6.1.1 (cell division cycle 42 (GTP-binding protein, 25kD)); dJ224A
UniProt Protein Name	Cell division control protein 42 homolog
UniProt Gene Name	CDC42
UniProt Entry Name	CDC42_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/cdc42-antibody-flow-cytometry-immunofluorescence-immunocytochemistry-western-blot-elisa/126967>