

Basic Information

Product Name	Anti-CDC42 Antibody	
Gene Name	CDC42	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, ICC/IF, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human CDC42 recombinant protein (Position: N26-L191).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	21 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	Enzyme linked immunosorbent assay (ELISA):	1:100-1000

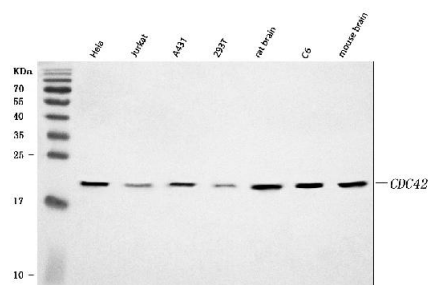
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

Cell division control protein 42 homolog also known as CDC42 is a protein involved in regulation of the cell cycle. In humans, CDC42 is encoded by the CDC42 gene. CDC42 is a small GTPase of the Rho-subfamily, which regulates signaling pathways that control diverse cellular functions including cell morphology, migration, endocytosis and cell cycle progression. This protein is highly similar to *Saccharomyces cerevisiae* Cdc 42, and is able to complement the yeast *cdc42-1* mutant. The product of oncogene *Dbl* was reported to specifically catalyze the dissociation of GDP from this protein. This protein could regulate actin polymerization through its direct binding to Neural Wiskott-Aldrich syndrome protein (N-WASP), which subsequently activates Arp2/3 complex. Alternative splicing of this gene results in multiple transcript variants.

Selected Validation Data



Western blot analysis of anti-CDC42 antibody (A00119-1). 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 membrane.

Then the membrane was incubated with rabbit anti-CDC42 antigen

affinity purified polyclonal antibody (A00119-1) and probed with a

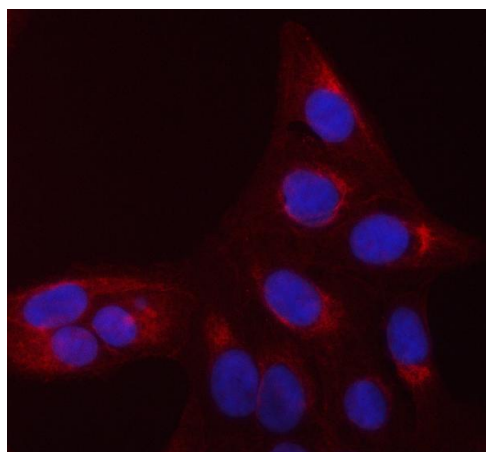
goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054).

The signal is developed using ECL Plus Western Blotting Substrate

(Catalog # AR1197). A specific band was detected for CDC42 at

approximately 21 kDa. The expected band size for CDC42 is at 21

kDa.



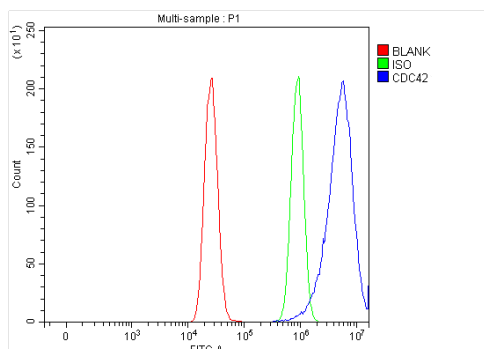
ICC/IF analysis of CDC42 using anti-CDC42 antibody (A00119-1).

CDC42 was detected in an immunocytochemical section of U2OS

cells. Cy3-conjugated Anti-rabbit IgG Secondary Antibody

(red)(Catalog#BA1032) was used as secondary antibody. The section

was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of MCF-7 cells using anti-CDC42 antibody (A00119-1).

Overlay histogram showing MCF-7 cells stained with A00119-1 (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 (A00119-1, 1:100).

Fluoro488 conjugated goat anti-rabbit IgG (BA1127, 1:100) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG (Catalog # BA1045) (1:100) used under the same conditions. Unlabelled sample (Red line) was also used as a control.