



Datasheet for ABIN968256  
**anti-CDC42 antibody (AA 1-191)**



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### Overview

Quantity:	150 µg
Target:	CDC42
Binding Specificity:	AA 1-191
Reactivity:	Human, Mouse, Rat, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CDC42 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

### Product Details

Immunogen:	Human CDC42 aa. 1-191
Clone:	44-CDC42
Isotype:	IgG1
Cross-Reactivity:	Rat (Rattus), Dog (Canine), Mouse (Murine)
Characteristics:	<ol style="list-style-type: none"><li>1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.</li><li>2. Please refer to us for technical protocols.</li><li>3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.</li><li>4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.</li></ol>
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

## Product Details

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chromatography.

## Target Details

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Target: CDC42

Alternative Name: Cdc42 ([CDC42 Products](#))

Background: Rho family members are small GTP binding proteins that serve as molecular switches for a number of biological processes. They cycle between active GTP-bound and inactive GDP-bound states. CDC42 is a Rho family protein that was identified in membranes of human platelets and placenta. It is the homologue of CDC42Sc, which regulates initiation of bud-site assembly in *Saccharomyces cerevisiae*. CDC42 regulates the function of the mammalian actin cytoskeleton, allowing for efficient cytokinesis and cell morphogenesis. CDC42 and Rac1, a Ras-related GTPase, activate MEKK1, a JNK kinase kinase, which leads to the activation of several downstream components of the MAP kinase cascade leading to activation of PAK65, a CDC42- and Rac-binding protein. PAK65 interacts with CDC42/Rac1, mediates their interaction with MEKK1, and enhances MEKK1 catalytic activity. Chronic activation of CDC42 has been shown to induce malignant cellular transformation. Due to sequence homology among various small GTPase family members, potential cross-reactivity could be observed with this antibody.

Molecular Weight: 22 kDa

Pathways: [MAPK Signaling](#), [Microtubule Dynamics](#), [RTK Signaling](#), [WNT Signaling](#), [TCR Signaling](#), [EGFR Signaling Pathway](#), [Regulation of Actin Filament Polymerization](#), [Regulation of Muscle Cell Differentiation](#), [Cell-Cell Junction Organization](#), [Maintenance of Protein Location](#), [Skeletal Muscle Fiber Development](#), [Signaling Events mediated by VEGFR1 and VEGFR2](#), [EGFR Downregulation](#), [VEGF Signaling](#)

## Application Details

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Comment: Related Products: [ABIN967389](#), [ABIN968545](#)

Restrictions: For Research Use only

## Handling

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Format: Liquid

Concentration: 250 µg/mL

Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.

## Handling

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Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

## Publications

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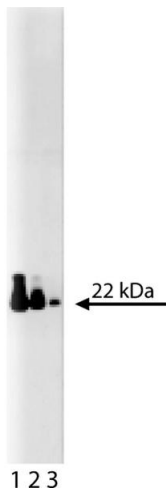
- Product cited in:
- Habas, Dawid, He: "Coactivation of Rac and Rho by Wnt/Frizzled signaling is required for vertebrate gastrulation." in: **Genes & development**, Vol. 17, Issue 2, pp. 295-309, (2003) ([PubMed](#)).
- Brandt, Gimona, Hillmann, Haller, Mischak: "Protein kinase C induces actin reorganization via a Src- and Rho-dependent pathway." in: **The Journal of biological chemistry**, Vol. 277, Issue 23, pp. 20903-10, (2002) ([PubMed](#)).
- Zugasti, Rul, Roux, Peyssonnaud, Eychene, Franke, Fort, Hübner: "Raf-MEK-Erk cascade in anoikis is controlled by Rac1 and Cdc42 via Akt." in: **Molecular and cellular biology**, Vol. 21, Issue 19, pp. 6706-17, (2001) ([PubMed](#)).
- Shinjo, Koland, Hart, Narasimhan, Johnson, Evans, Cerione: "Molecular cloning of the gene for the human placental GTP-binding protein Gp (G25K): identification of this GTP-binding protein as the human homolog of the yeast cell-division-cycle protein CDC42." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 87, Issue 24, pp. 9853-7, (1991) ([PubMed](#)).
- Munemitsu, Innis, Clark, McCormick, Ullrich, Polakis: "Molecular cloning and expression of a G25K cDNA, the human homolog of the yeast cell cycle gene CDC42." in: **Molecular and cellular biology**, Vol. 10, Issue 11, pp. 5977-82, (1990) ([PubMed](#)).

**Image 1.**



**Western Blotting**

**Image 2.**



**Western Blotting**

**Image 3.** Western blot analysis of CDC42 on rat brain lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-CDC42 antibody.

