

## Mouse Cdc42 Monoclonal Antibody | anti-CDC42 antibody

Cdc42

|                              |                      |                                        |                                                                 |
|------------------------------|----------------------|----------------------------------------|-----------------------------------------------------------------|
| CATALOG #<br><b>AAA71502</b> | HOST<br><b>Mouse</b> | REACTIVITY<br><b>Human, Rat, Mouse</b> | APPLICATIONS<br><b>Immunocytochemistry, Western Blot, ELISA</b> |
|------------------------------|----------------------|----------------------------------------|-----------------------------------------------------------------|

### PRODUCT SYNONYMS

Cdc42; Monoclonal Antibody; Cell Division Cycle 42; GTP-Binding Protein 25-KD; G25K; anti-CDC42 antibody

### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                                                                     |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Mouse                                                                                                                                                               |
| Reactivity                                      | Human, Rat, Mouse                                                                                                                                                   |
| Clonality                                       | Monoclonal                                                                                                                                                          |
| Isotype                                         | IgG1                                                                                                                                                                |
| Clone Number                                    | M152                                                                                                                                                                |
| Specificity                                     | The antibody detects a 21 kDa protein in human Jurkat cells and mouse brain. It does not recognize a human RhoA GST fusion protein.                                 |
| Form/Format                                     | Mouse monoclonal antibody purified with protein A chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. |
| Sequence Length                                 | 136                                                                                                                                                                 |
| Applicable Applications for anti-CDC42 antibody | ICC (Immunocytochemistry), WB (Western Blot), ELISA                                                                                                                 |
| Immunogen                                       | Clone (M152) was generated from a rat recombinant Cdc42 protein. This sequence is highly conserved in human and mouse Cdc42.                                        |
| Preparation and Storage                         | Store at -20°C. Stable for 1 year.                                                                                                                                  |

### IMAGES



#### WB (Western Blot)

Western blot analysis of human jurkat cells (lanes 1 & 2) and mouse brain (lanes 3 & 4). The blots were probed with anti-Cdc42 antibody at 1:125 (lanes 1 & 3) or 1:500 (lanes 2 & 4).



#### ICC (Immunocytochemistry)

Immunocytochemical labeling in rat PC12 cells grown for 4 days on poly-D-lysine-coated plates in the presence (200 ng/ml) or absence (Control) of Nerve Growth Factor (NGF). Anti-Cdc42 (CM1521) was used at 1:50 dilution followed by labeling with donkey anti-mouse: Cy2.

### ADDITIONAL INFORMATION

#### Related Product Information for anti-CDC42 antibody

Cdc42 proteins are Rho GTPase family members, which act as molecular switches in regulating a variety of biological response pathways including cell motility, cell-cycle progression, gene transcription, and cell transformation. Cdc42 GTPases regulate molecular events by cycling from the inactive GDP-bound state to active GTP-bound forms. The ratio of GDP versus GTP, which is bound to the GTPase, is determined by the opposing effects of guanine nucleotide exchange factors and GTPase activating proteins. Active (GTP-bound) Cdc42 binds to the p21-binding domain of p21-activated protein kinase 1 (PAK1) to regulate downstream signaling cascades.

|            |                                                                                                                                                                                                                                                           |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| References | <ul style="list-style-type: none"> <li>• Munemitsu, S. et al. (1990) Mol. Cell. Biol. 10:5977.</li> <li>• Shinjo, K. et al. (1990) PNAS (USA) 87:9853.</li> <li>• Erickson, J.W. &amp; Cerione, R.A. (2001) Curr. Opin. Cell. Biol. 13(2):153.</li> </ul> |
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NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 56202836                                                                                                                                                                                                                                                                                                                              |
| NCBI GeneID                      | 998                                                                                                                                                                                                                                                                                                                                   |
| NCBI Accession #                 | CAI19851.1                                                                                                                                                                                                                                                                                                                            |
| NCBI GenBank Nucleotide #        | AL031281.6                                                                                                                                                                                                                                                                                                                            |
| UniProt Accession #              | Q5JYX0; P60953; Q9UJM0; Q9UJM1                                                                                                                                                                                                                                                                                                        |
| NCBI Official Full Name          | cell division cycle 42 (GTP binding protein, 25kDa)                                                                                                                                                                                                                                                                                   |
| NCBI Official Synonym Full Names | cell division cycle 42 (GTP binding protein, 25kDa)                                                                                                                                                                                                                                                                                   |
| NCBI Official Symbol             | CDC42                                                                                                                                                                                                                                                                                                                                 |
| NCBI Official Synonym Symbols    | G25K; CDC42Hs                                                                                                                                                                                                                                                                                                                         |
| NCBI Protein Information         | cell division control protein 42 homolog; OTTHUMP00000002834; OTTHUMP00000002926; G25K GTP-binding protein; GTP-binding protein, 25kD; growth-regulating protein; small GTP binding protein CDC42; dJ224A6.1.1 (cell division cycle 42 (GTP-binding protein, 25kD)); dJ224A6.1.2 (cell division cycle 42 (GTP-binding protein, 25kD)) |
| UniProt Protein Name             | Cell division cycle 42 (GTP binding protein, 25kDa)                                                                                                                                                                                                                                                                                   |
| UniProt Gene Name                | CDC42                                                                                                                                                                                                                                                                                                                                 |
| UniProt Entry Name               | Q5JYX0_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.