



## Rabbit Anti-Phospho-CDC42 (Ser71) antibody

SL3369R

<b>Product Name:</b>	Phospho-CDC42 (Ser71)
<b>Chinese Name:</b>	磷酸化Cell differentiation周期CDC42蛋白抗体
<b>Alias:</b>	CDC 42; CDC42Hs; Cell division control protein 42 homolog; Cell division cycle 42; Cell division cycle 42 isoform 1; Cell division cycle 42 isoform 2; dJ224A6.1.1; dJ224A6.1.2; G25K; G25K GTP binding protein; Growth regulating protein; GTP binding protein 25kD; Small GTP binding protein CDC42; CDC42 HUMAN.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Dog,Sheep,
<b>Applications:</b>	ELISA=1:500-1000IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	21kDa
<b>Cellular localization:</b>	cytoplasmicThe cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated Synthesised phosphopeptide derived from human CDC42 around the phosphorylation site of Ser71:PL(p-S)YP
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	The protein encoded by this gene 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. Pseudogenes of this gene have been identified on chromosomes 3, 4, 5, 7, 8 and 20. [provided by RefSeq, Apr 2013].

**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.

**Subunit:**

The GTP-bound form interacts with CCPG1. Interacts with CDC42EP1, CDC42EP2, CDC42EP3, CDC42EP4, CDC42EP5, CDC42SE1, CDC42SE2, PARD6A, PARD6B and PARD6G (in a GTP-dependent manner). Interacts with activated CSPG4 and with BAIAP2. Interacts with Zizimin1/DOCK9 and Zizimin2/DOCK11, which activate it by exchanging GDP for GTP. Interacts with NET1 and ARHGAP33/TCGAP. Part of a complex with PARD3, PARD6A or PARD6B and PRKCI or PRKCZ. Interacts with USP6. May interact with ARHGEF16; responsible for the activation of CDC42 by the viral protein HPV16 E6. Interacts with NEK6. Part of a collagen stimulated complex involved in cell migration composed of CDC42, CRK, TNK2 and BCAR1/p130cas.

**Subcellular Location:**

Cell membrane; Lipid-anchor; Cytoplasmic side (Potential). Cytoplasm, cytoskeleton, centrosome. Cytoplasm, cytoskeleton, spindle. Midbody.

**Post-translational modifications:**

AMPylation at Tyr-32 and Thr-35 are mediated by bacterial enzymes in case of infection by *H.somnus* and *V.parahaemolyticus*, respectively. AMPylation occurs in the effector region and leads to inactivation of the GTPase activity by preventing the interaction with downstream effectors, thereby inhibiting actin assembly in infected cells. It is unclear whether some human enzyme mediates AMPylation; FICD has such ability in vitro but additional experiments remain to be done to confirm results in vivo.

**Similarity:**

Belongs to the small GTPase superfamily. Rho family. CDC42 subfamily.

**SWISS:**

P60953

**Gene ID:**  
998

**Database links:**

[Entrez Gene: 998](#)Human

[Entrez Gene: 12540](#)Mouse

[Entrez Gene: 64465](#)Rat

[Omim: 116952](#)Human

[SwissProt: P60953](#)Human

[SwissProt: P60766](#)Mouse

[SwissProt: Q8CFN2](#)Rat

[Unigene: 467637](#)Human

[Unigene: 1022](#)Mouse

[Unigene: 447553](#)Mouse

[Unigene: 60067](#)Rat

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Cdc42, 是Cytoskeleton和细胞极化的重要调节蛋白, 在减数分裂和卵母细胞成熟过程中有重要的作用, 尤其在Cell differentiation, 迁移过程中起到一定的作用, 目前在Tumour研究中得到了重视。