



CDC42 Monoclonal Antibody

Catalog No	YP-mAb-06443
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	CDC42
Protein Name	Cell division control protein 42 homolog (G25K GTP-binding protein)
Immunogen	Synthesized peptide derived from human protein . at AA range: 80-160
Specificity	CDC42 Monoclonal Antibody detects endogenous levels of protein.
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	
Observed Band	21kD
Cell Pathway	Cell membrane ; Lipid-anchor ; Cytoplasmic side . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Cytoplasm, cytoskeleton, spindle . Midbody . Cell projection, dendrite . Localizes to spindle during prometaphase cells. Moves to the central spindle as cells progressed through anaphase to telophase (PubMed:15642749). Localizes at the end of cytokinesis in the intercellular bridge formed between two daughter cells (PubMed:15642749). Its localization is regulated by the activities of guanine nucleotide exchange factor ECT2 and GTPase activating protein RACGAP1 (PubMed:15642749). Colocalizes with NEK6 in the centrosome (PubMed:20873783). In its active GTP-bound form localizes to the leading edge membrane of migrating dendritic cells (By similarity). .
Tissue Specificity	Brain,Cajal-Retzius cell,Cervix,Embryo,Fetal brain,Fetal brain cortex,Placenta,Uter
Function	enzyme regulation:Regulated by guanine nucleotide exchange factors (GEFs) which promote the exchange of bound GDP for free GTP, GTPase activating proteins (GAPs) which increase the GTP hydrolysis activity, and GDP dissociation inhibitors which inhibit the dissociation of the nucleotide from the GTPase.,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. Causes the formation of thin, actin-rich surface projections called filopodia.,similarity:Belongs to the small GTPase superfamily. Rho family.,similarity:Belongs to the small GTPase superfamily. Rho family. CDC42 subfamily.,subunit:The GTP-bound form interacts with CCPG1 (By similarity). Interacts with CDC42EP1, CDC42EP2, CDC42EP3,

Background

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],

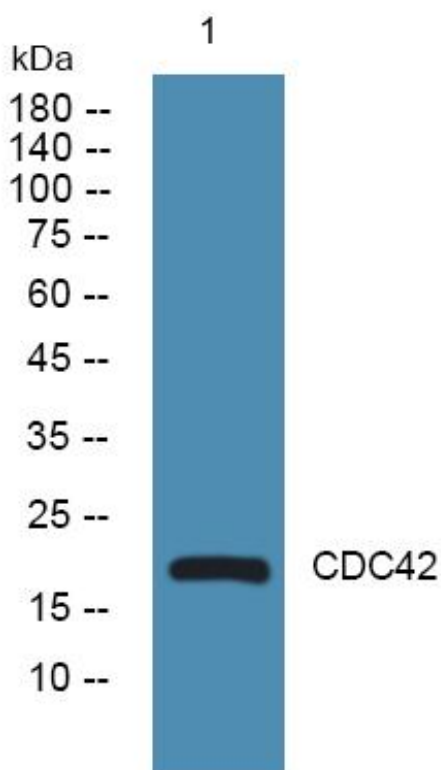
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis of various cells using CDC42 Monoclonal Antibody