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**Product Name: MRCK $\beta$  Rabbit Polyclonal Antibody****Catalog #: APRab14082**

For research use only.

**Summary**

|                      |   |
|----------------------|---|
| <b>Description</b>   | Rabbit polyclonal Antibody  |
| <b>Host</b>          | Rabbit  |
| <b>Application</b>   | WB,IHC,ICC/IF,ELISA   |
| <b>Reactivity</b>    | Human,Mouse,Rat   |
| <b>Conjugation</b>   | Unconjugated  |
| <b>Modification</b>  | Unmodified  |
| <b>Isotype</b>       | IgG   |
| <b>Clonality</b>     | Polyclonal  |
| <b>Form</b>          | Liquid  |
| <b>Concentration</b> | 1mg/ml  |
| <b>Storage</b>       | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.                       |
| <b>Shipping</b>      | Ice bags  |
| <b>Buffer</b>        | Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N. |
| <b>Purification</b>  | Affinity purification   |

**Application**

|                         |   |
|-------------------------|---|
| <b>Dilution Ratio</b>   | WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:20000-1:40000 |
| <b>Molecular Weight</b> | 194kDa  |

**Antigen Information**

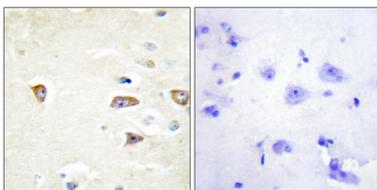
|                          |   |
|--------------------------|---|
| <b>Gene Name</b>         | CDC42BPB<br>CDC42BPB; KIAA1124; Serine/threonine-protein kinase MRCK beta; CDC42-binding protein  |
| <b>Alternative Names</b> | kinase beta; CDC42BP-beta; DMPK-like beta; Myotonic dystrophy kinase-related CDC42-binding kinase beta; MRCK beta; Myotonic dystrophy protein kinase-like b |
| <b>Gene ID</b>           | 9578.0  |
| <b>SwissProt ID</b>      | Q9Y5S2  |
| <b>Immunogen</b>         | The antiserum was produced against synthesized peptide derived from human MRCKB. AA range:1641-1690   |

## Background

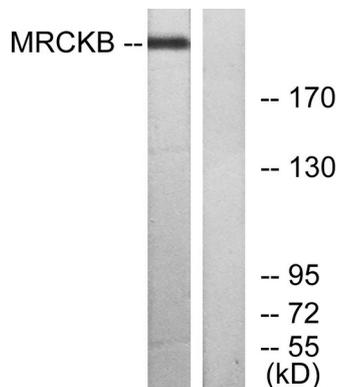
This gene encodes a member of the serine/threonine protein kinase family. The encoded protein contains a Cdc42/Rac-binding p21 binding domain resembling that of PAK kinase. The kinase domain of this protein is most closely related to that of myotonic dystrophy kinase-related ROK. Studies of the similar gene in rat suggested that this kinase may act as a downstream effector of Cdc42 in cytoskeletal reorganization. [provided by RefSeq, Jul 2008],catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,enzyme regulation:Maintained in an inactive, closed conformation by an interaction between the kinase domain and the negative autoregulatory C-terminal coiled-coil region. Agonist binding to the phorbol ester binding site disrupts this, releasing the kinase domain to allow N-terminus-mediated dimerization and kinase activation by transautophosphorylation.,function:May act as a downstream effector of CDC42 in cytoskeletal reorganization. Contributes to the actomyosin contractility required for cell invasion, through the regulation of MYPT1 and thus MLC2 phosphorylation.,sequence caution:Contaminating sequence. Potential poly-A sequence.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. DMPK subfamily.,similarity:Contains 1 AGC-kinase C-terminal domain.,similarity:Contains 1 CNH domain.,similarity:Contains 1 CRIB domain.,similarity:Contains 1 PH domain.,similarity:Contains 1 phorbol-ester/DAG-type zinc finger.,similarity:Contains 1 protein kinase domain.,subcellular location:Displays a dispersed punctate distribution and concentrates along the cell periphery, especially at the leading edge and cell-cell junction. This concentration is PH-domain dependent.,subunit:Homodimer and homotetramer via the coiled coil regions. Interacts tightly with GTP-bound but not GDP-bound CDC42.,tissue specificity:Expressed in all tissues examined, with high levels in heart, brain, placenta and lung.,

## Research Area

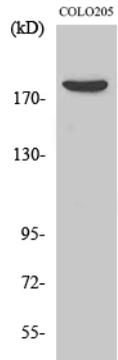
### Image Data



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using MRCKB Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from COLO cells, using MRCKB Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using MRCK $\beta$  Polyclonal Antibody