

## Summary

Production Name	$MRCK\alpha \text{ Rabbit Polyclonal Antibody}$
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse,Rat

## Performance

Conjugation	Unconjugated
Modification	Unmodified
lsotype	lgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

### Immunogen

Gene Name	CDC42BPA
Alternative Names	CDC42BPA; KIAA0451; Serine/threonine-protein kinase MRCK alpha; CDC42-binding
	protein kinase alpha; DMPK-like alpha; Myotonic dystrophy kinase-related CDC42-
	binding kinase alpha; MRCK alpha; Myotonic dystrophy protein kinase-like alpha
Gene ID	8476.0
SwissProt ID	Q5VT25.Synthesized peptide derived from the Internal region of human MRCK $\alpha$ . AA
	range: 580-660

# Application

Dilution Ratio	WB 1:500-2000 ELISA 2000-20000
Molecular Weight	200kD



#### Background

The protein encoded by this gene is a member of the Serine/Threonine protein kinase family. This kinase contains multiple functional domains. Its kinase domain is highly similar to that of the myotonic dystrophy protein kinase (DMPK). This kinase also contains a Rac interactive binding (CRIB) domain, and has been shown to bind CDC42. It may function as a CDC42 downstream effector mediating CDC42 induced peripheral actin formation, and promoting cytoskeletal reorganization. Multiple alternatively spliced transcript variants have been described, and the full-length nature of two of them has been reported. [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, 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:Abundant in the heart, brain, skeletal muscle, kidney, and pancreas, with little or no expression in the lung and liver.,

## **Research Area**



# Image Data

Western Blot analysis of various cells using MRCK Polyclonal Antibody



Note

For research use only.