

## MRCKα Polyclonal Antibody

**Catalog # AP71010** 

### **Specification**

## MRCKα Polyclonal Antibody - Product Information

Application WB
Primary Accession Q5VT25

Reactivity Human, Mouse, Rat

Host Rabbit Clonality Polyclonal

## MRCKα Polyclonal Antibody - Additional Information

**Gene ID 8476** 

#### **Other 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

#### **Dilution**

WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications.

#### **Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

### **Storage Conditions**

-20°C

### MRCKα Polyclonal Antibody - Protein Information

Name CDC42BPA {ECO:0000312|EMBL:CAH71336.1}

Synonyms KIAA0451

## **Function**

Serine/threonine-protein kinase which is an important downstream effector of CDC42 and plays a role in the regulation of cytoskeleton reorganization and cell migration (PubMed:<a href="http://www.uniprot.org/citations/15723050" target="\_blank">15723050</a>, PubMed:<a href="http://www.uniprot.org/citations/9418861" target="\_blank">9418861</a>, PubMed:<a href="http://www.uniprot.org/citations/9092543" target="\_blank">9092543</a>). Regulates actin cytoskeletal reorganization via phosphorylation of PPP1R12C and MYL9/MLC2 (PubMed:<a href="http://www.uniprot.org/citations/21457715" target="\_blank">21457715</a>). In concert with MYO18A and LURAP1, is involved in modulating lamellar actomyosin retrograde flow that is crucial to cell protrusion and migration (PubMed:<a

href="http://www.uniprot.org/citations/18854160" target=" blank">18854160</a>).

Phosphorylates: PPP1R12A, LIMK1 and LIMK2 (PubMed: <a

href="http://www.uniprot.org/citations/11340065" target="\_blank">11340065</a>, PubMed:<a



href="http://www.uniprot.org/citations/11399775" target="\_blank">11399775</a>). May play a role in TFRC-mediated iron uptake (PubMed:<a href="http://www.uniprot.org/citations/20188707" target="\_blank">20188707</a>). In concert with FAM89B/LRAP25 mediates the targeting of LIMK1 to the lamellipodium resulting in its activation and subsequent phosphorylation of CFL1 which is important for lamellipodial F-actin regulation (By similarity). Triggers the formation of an extrusion apical actin ring required for epithelial extrusion of apoptotic cells (PubMed:<a href="http://www.uniprot.org/citations/29162624" target="blank">29162624</a>).

# **Cellular Location**

Cytoplasm {ECO:0000250|UniProtKB:O54874}. Cell projection, lamellipodium {ECO:0000250|UniProtKB:Q3UU96}. Note=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. Localizes in the lamellipodium in a FAM89B/LRAP25-dependent manner. {ECO:0000250|UniProtKB:O54874, ECO:0000250|UniProtKB:Q3UU96}

#### **Tissue Location**

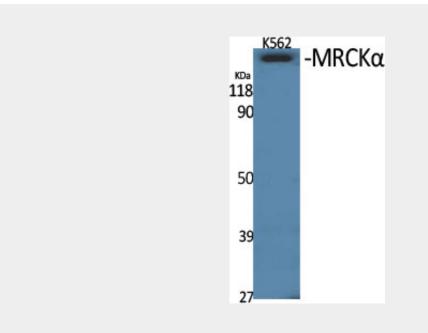
Abundant in the heart, brain, skeletal muscle, kidney, and pancreas, with little or no expression in the lung and liver.

## MRCKα Polyclonal Antibody - Protocols

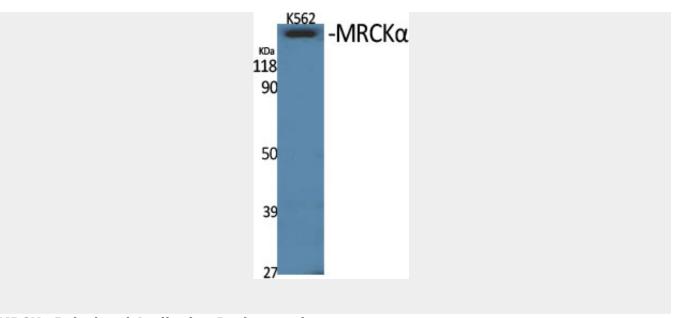
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# MRCKα Polyclonal Antibody - Images







# MRCKα Polyclonal Antibody - Background

Serine/threonine-protein kinase which is an important downstream effector of CDC42 and plays a role in the regulation of cytoskeleton reorganization and cell migration (PubMed:15723050, PubMed:9418861, PubMed:9092543). Regulates actin cytoskeletal reorganization via phosphorylation of PPP1R12C and MYL9/MLC2 (PubMed:21457715). In concert with MYO18A and LURAP1, is involved in modulating lamellar actomyosin retrograde flow that is crucial to cell protrusion and migration (PubMed:18854160). Phosphorylates: PPP1R12A, LIMK1 and LIMK2 (PubMed:11340065, PubMed:11399775). May play a role in TFRC-mediated iron uptake (PubMed:20188707). In concert with FAM89B/LRAP25 mediates the targeting of LIMK1 to the lamellipodium resulting in its activation and subsequent phosphorylation of CFL1 which is important for lamellipodial F-actin regulation (By similarity).